



WORLD'S • FAIR • COLLECTION





F. BEDFORD, DEL. ET LITH.

LONDON, PUBLISHED MARCH 15th 1853, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN, 17, GATE STREET, LINCOLNS INN FIELDS.



THE INDUSTRIAL ARTS
OF
THE NINETEENTH CENTURY.

A SERIES OF ILLUSTRATIONS

OF THE

CHOICEST SPECIMENS PRODUCED BY EVERY NATION

AT THE

GREAT EXHIBITION OF WORKS OF INDUSTRY, 1851.

DEDICATED, BY PERMISSION, TO HIS ROYAL HIGHNESS THE PRINCE ALBERT.

By M. DIGBY WYATT, ARCHITECT.

LONDON:

PUBLISHED BY DAY AND SON, LITHOGRAPHERS TO THE QUEEN.

MDCCLL.



TO

HIS ROYAL HIGHNESS THE PRINCE ALBERT.

THE present Work aims at being a faithful record of the characteristics of those productions displayed at the Great Exhibition of 1851, which best illustrate the advanced condition of the Industrial Arts of the Nineteenth Century.

As such, it is most respectfully dedicated to Your Royal Highness, the illustrious patron of those arts, and the consistent friend of all engaged (however humbly) in their promotion,

BY YOUR ROYAL HIGHNESS'S

MOST OBEDIENT, HUMBLE SERVANT,

M. DIGBY WYATT.

*77 Great Russell Street,
September 14th, 1851*

INTRODUCTION.

THE vastness of the multitudes, who have flocked to examine and derive instruction from the thousands of objects displayed at the Great Exhibition of Industry of 1851, is scarcely less remarkable, than the pertinacity with which all, whose business or inclination interests them in the great office of production, return again and again for the purpose of imprinting on their memories the aspect of works admirable for abstract perfection, or as affecting those specialties with which each visitor may be connected. A consideration of the above fact has induced the Author to believe, that a publication, in which the most beautiful objects he might be enabled to select should be reproduced, through the best means of graphic representation available in the present day, could not fail to be at once useful and popular.

It has been remarked, that in History a great combination of circumstances has rarely occurred without having been accompanied by the developement of a master mind, the native powers of which, moulded to specific form by those circumstances, have in turn reacted upon the conjunction of events, and so created those turning points of Story which survive conspicuous, while all around is lost in darkness and obscurity. It is from the traditions of such epochs that Historians have been enabled to furnish living pictures of past events. In Art it is a no less regular phenomenon, that whenever the æsthetic tendencies of nations have demanded the embodiment of some great transitional phase of imagination, the fitting artist has seldom failed to erect corresponding monuments, thereby setting up beacons by which after ages, in looking back over the intervening sea of time, have been enabled to recognise the great features of physical and mental eccentricity, stamped on every crumbling relic of tower, tomb, temple, basilica, mosque, church, god, saint, or prophet.

In Industry, an analogous coincidence has obtained between the mental and physical requirements of nations, and the developement of appropriate manufactures,—the forms

and processes of which have been from age to age commemorated on great occasions, the records of which may be regarded, as those of the festivals of contemporaneous labour. There can be little doubt, that what the Olympic Games, and the Imperial solemnities and triumphs were to Greece and Rome, her Expositions have been to France. As the traditions of the industrial arts of Greece and Rome faded away, and new processes were developed by the Christian element, the carvers, the painters, the embroiderers, the mosaic workers and goldsmiths of Byzantium, held their festival in the inauguration of Santa Sophia. In the glorious feasts of Haroun el Raschid, the Oriental variations from Greek practice asserted their independent existence. The sum of the modifications induced, by lapse of years, on the fountains of art-workmanship springing from those sources, were respectively represented in the inauguration of the cathedral of Saint Denis and the mosque of Corduba,—the former illustrating the nascent processes of Gothic, the latter of Moorish art—the former of these two series of processes to accomplish their destiny, and reach their climax, in the construction of Cologne Cathedral, the latter in that of the Alhambra. The great religious anniversaries of the middle ages were so many vast fairs, at which Exhibitions of Industry took place,—the glorious festivals and *mascherate* of Sienna, Florence, Pisa, and Venice, were celebrations of the first triumphs of commercial enterprise, and their records, perhaps, better illustrate conditions of mediæval supply and demand than those of any other states throughout Europe.

The revival of the forms of ancient art, through the study of the relics bequeathed by it, soon extended its influence over manufacture, and in the completion of the Sistine Chapel and the commencement of St. Peter's the principle of such a revival was publicly acknowledged and celebrated in Italy. In the Meeting of Henry VIII. and Francis I. on the Field of the Cloth of Gold, and in the triumphs of Maximilian, the extension to France, to England, and to Germany, of the arts and types of form peculiar to the period of the Renaissance, must be fully recognised. Working on the basis of that revival, manufactures and designs for manufactures gradually dwindled into an unsatisfactory condition, and we look in vain for any very important mark of change until the genius of Colbert arose, invigorating the whole commercial system of Europe. The foundations of many improvements in production, secured by that profound minister for France, were gradually worked upon until originality was attained; and the impetus so given to graceful, although *bizarre* design, was communicated by France to the other nations of Europe, and thence originated the shoals of scroll-work *Rocaille*, which overspread every object manufactured in this country during the last century.

The progress of production thus elaborated in France, at length, and at its

culminating point, demanded some distinct enunciation; and it was accordingly in the first Parisian "Exposition" of 1797 that the triumphs of the old school of Sèvres, of Boule, of the Gobelins, &c., were achieved. The utility of exhibitions, as healthy stimulants to Industry, was thereby so manifested, that they have been repeated under every form of government which has since prevailed in France; and in their records an interesting narrative of the rapid growth of human ingenuity, in the hot-bed of modern civilisation, is to be met with. The almost incessant wars which so long devastated Europe, and which only terminated in 1815, impeded the culture of those arts which have been emphatically designated the "Arts of Peace." Those wars, however, had no sooner terminated than an extraordinary activity was manifested, more especially in this country; and on looking back over the last six-and-thirty years, elements of change must be found to have been introduced, calculated to derange the whole previous system of fabrication and demand. The extension of the application of steam, gas, &c. to the thousand purposes upon which they are now brought to bear, have scarcely less affected National Industry by changing the conditions of supply, than has the spread of popular education by entirely altering the nature and peculiarities of demand. The most remarkable feature of the movement to which we are alluding—that, namely, which has taken place in this country during the last six-and-thirty years—is the universality of developement attained by combining the division of labour in manufacture with the aggregation of its results in commerce. Sympathising, on the one hand, with the highest excellence both of art and manufacture, modern English production has, on the other, effected a concurrent and unprecedented reduction in price. An amount of thought and ingenuity equal to the origination of many of the monster engineering works which form the pride, the boast, and the glory of the present day, has been bestowed upon an attempt to reduce the cost of a common cotton print the fraction of a farthing per yard. Other nations have not been idle while England has worked, and it is, therefore, little wonderful that, under the action of a progress worthy to have enlisted the pens of such men as Babbage, Brougham, Macculloch, Porter, &c. to record, the great festival, in which that progress finds its tangible embodiment, should speak eloquently, chronicling the race which has been run by all nations for pre-eminence in a glorious, though peaceful, competition.

Were it but possible now to procure some pictures vivid enough to recall a series of the principal elements and objects which adorned those triumphs of industry of past ages to which allusion has been made, how interesting and improving would the examination of such collections be: as it is, years of study must now be given to realise in any

degree the tangibilities of history, of which, unfortunately, too few indications have survived to our day. That it is incumbent on every age to leave to its successor the best possible data as to the fruits of its labours and experiences, few will feel disposed to deny; nor will they, probably, be less likely to admit, that if ever an occasion existed, worthy of the best record the art of the nineteenth century could create, that occasion most assuredly is to be met with in the Great Exhibition of Works of Industry of 1851.

In the choice of the subjects for illustration the Author will not, it is hoped, expose himself to the charge of having made in any way an invidious selection, or be supposed to pledge himself to any expression of opinion on relative merits. His aim has been to engrave such specimens as he believed would be likely to be practically useful in naturalising among us improvements in purity of form or colour; in placing in juxtaposition the excellencies of various nations; in furnishing models for manufacturers to study and surpass; and by means of which the Public may be enabled hereafter to test the future progress of Industrial Art in this and other countries.

POSTSCRIPT.

IN bringing to a conclusion his arduous labours of the last eighteen months, the Author of the present Work cannot but indulge a feeling of almost parental anxiety in finally committing it to the tender mercies of the world. He would fain, at least, furnish it with such a letter of introduction, as may set forth to those who may hereafter make its acquaintance the circumstances connected with its origin, growth, and maturity.

An allusion to those circumstances, somewhat more in detail than is usual, may, he trusts, be justified by the consideration that the present Work is the most important application of Chromo-Lithography to assist the connexion which should subsist between Art and Industry which has yet appeared; and, further, that it has been produced upon a scale of magnitude, and with a degree of rapidity, unexampled in this or any other country. A knowledge of the circumstances referred to may tend, at the same time, in some degree to mitigate the severity of the atrabilious critic, and to enlist the sympathies of the more kindly disposed. In the month of April 1851 the present publication was not even thought of; and, when the number of elaborate plates produced within the short space of time which has since elapsed is borne in mind, some allowance may be made for occasional imperfections.

Shortly after the opening of the Great Exhibition the Publisher called upon the Author, and, stating his desire to demonstrate, upon a great scale, the capabilities of colour-printing as an auxiliary to industrial education, requested him to undertake this Work. The offer was immediately accepted, and the general scheme to be carried out was drawn up and matured on the same day. The task of selecting from the infinitely varied objects contributed to the Exhibition, such as appeared best to represent specific interests in manufacture, or to suggest models for study and imitation, was then commenced; and it must be obvious that, where so much presented itself on every side to arrest attention, it was a matter of considerable delicacy and difficulty to arrive at a determinate conclusion. The subjects of the plates, however, having been selected, the next step was their arrangement in such groups as were calculated to display most agreeably their relative excellencies. No less than twenty talented draftsmen were immediately set to work in making elaborate studies, under the Author's

constant superintendence ; and among them may be named Mr. SLIEGH, Mr. SMALL-FIELD, Mr. CLAYTON, Mr. POZZI, Mr. DELAMOTTE, Mr. MICHAEL, Mr. BUTLER, Mr. THOMAS, Mr. MAYE, Mr. RAFTER, Mr. HAYES, Mr. PIDGEON, Mr. DALZIEL, Mr. AGLIO, Mr. HUMPHREYS, Mr. VINTER, and Mr. MILLAIS. Some apprehension at first existed that it would be impossible to procure a sufficient number of satisfactory drawings within the necessarily short time fixed upon for commencing the publication without having recourse to foreign artists ; but the energetic exertions and great ability of the above-named gentlemen soon rendered it apparent that no such necessity would exist.

As soon as a certain number of drawings had been completed, the work of transferring them to stone commenced ; and, as many of our readers may possess but imperfect ideas of the labour involved in this operation, we shall dwell for a few moments on the processes which are indispensable.

For the purposes of Lithography the original drawing requires, in the first instance, to be carefully traced. It is then retraced, or transferred to the stone, by interposing between the surface of the latter and the drawing a sheet of thin paper, prepared on the side next the stone with red chalk. The lithographer then draws upon the stone with a greasy chalk or ink, as the case may be, the whole of the outline of the subject, and as much of the shading as he may think necessary. On the conclusion of this drawing in black and white, the stone is sent to the printer, who, after chemically preparing it for the operation, takes off carefully as many impressions as there are colours required to perfect the polychromy of the original drawing. These impressions on thin paper are laid, whilst yet moist, upon a corresponding number of supplementary or colour stones, and passed through the lithographic press. By this means the outline of the first or key-stone is printed off upon each of the remaining stones of the series, and the artist is provided with an outline upon the latter, identical with that which existed upon the key-stone. Carefully analysing the amount of each colour in the original drawing, and noting the points of its predominance,—where, in some cases, it is allowed to appear pure, and in others to enter only into the composition of broken tints,—the artist proceeds to indicate upon each stone, in black chalk or ink, the requisite amount for each separate colour. Great care is required to bear in mind the succession of these tints, and to make due allowance for it, since it is obvious that the last printed, by its greater or less degree of opacity, may tend to kill all that has been done before. Great attention is likewise required in order that, when the various stones are worked together, the filling in of one colour shall exactly meet the space occupied by another, without either overlapping and producing dark edges, or leaving white lines or gaps between each tint.

Supposing the artist's work to have been satisfactorily terminated, much now depends upon the printer. Considerable hazard is incurred in the chemical preparation

of the stone, since, if washed with acid of too great a strength, all the delicate lines will disappear; or, if etched with too weak a solution, there will be a general tendency in the tints to clog up and become overcharged. Still greater difficulties present themselves in so attaching the paper upon which the impression is taken to each of the stones, as to cause the successive colours to fall into exactly their proper places, or, in technical language, to cause the stone to "register" well. Considerable practice is necessary before the requisite amount of dexterity can be attained in this respect; and few but those who have stood beside the press, and watched its practical manipulation, would give the workman credit for the degree of skill which is essential to a successful carrying out of this part of the operation. Where great rapidity is indispensable, these difficulties are materially increased; because, if any colour be too heavily printed, it will take so long to dry that it will for some time be impossible to work off the remaining tints upon the same impression.

The qualities presented by the plates in the present work will, we sincerely believe, do infinitely more honour to the reputation of the lithographic artists engaged in their production than any eulogy which could be pronounced upon their works by the Author. He is, however, personally, glad to have this opportunity of returning his best thanks to Mr. FRANCIS BEDFORD, Mr. SLIEGH, and Mr. VINTER, gentlemen to whose refined taste and brilliant powers of execution the illustrations are mainly indebted for their artistic excellence. Of the total number no less than one hundred and nine subjects have been produced by Mr. BEDFORD and his assistants. Many plates of great merit have been executed by the artists permanently attached to the establishment of the Publisher.

It was originally intended to divide the work into thirty-eight parts, each containing four plates, to be delivered to the public at intervals of a fortnight. The work was also issued in five divisions, each comprising eight parts; and, in order to render these divisions of equal extent, it was found necessary to increase the number of parts to forty, embracing, in the whole, 160 plates. The first number appeared on the 1st of October, 1851, and the last will have been published on the 7th of March, 1853.

We may add a few details of the printing-office, to show the great extent of the labour which has been involved in carrying out this publication, and the consequent difficulties in keeping faith with the public, which have been surmounted by the indefatigable energy and perseverance of the Publisher. The greatest number of printings for any one subject has been 14, and the average number 7. The edition printed has amounted to 1300 copies. Hence, to keep pace with the demand (each colour requiring a separate impression), the printer has had to pull the work through the press no fewer than 18,000 times, on an average, per week, amounting in the whole period to 1,350,500 pulls, after every one of which the stone requires to be carefully cleaned, and the paper readjusted for "register." It may be readily believed

that the "plant" locked up in such a work as the present is very extensive, since it has required 1069 stones, weighing in all about 25 tons. The weight of paper consumed in the lithographic department has not been less than 17,400 lbs.; and the organisation of the business details of the work has engaged the almost undivided attention of four or five superintendants; among whom may be especially noticed Mr. W. WALKER, whose exertions have truly been unceasing.

The letterpress, extending to nearly 350 folio pages, has been most carefully executed by Mr. BARCLAY, of Castle Street, Leicester Square, and assiduously watched through the press by his intelligent overseer, Mr. STRANGWAYS.

The labour of providing in such rapid succession a series of literary notices to accompany every plate — notices in which an endeavour has constantly been made to condense as much information as could be obtained, not only concerning the subject engraved, but the history and other peculiarities of the art of which it formed a specimen — has necessarily been considerable, the great variety of the subjects entailing no trifling amount of study and research. In these labours the Author has frequently received valuable aid from gentlemen practically interested in art and manufactures, and such obligations he has invariably recorded in the body of the work. It remains for him only, further, to express his gratitude to four gentlemen who have laid him under more especial obligations. To Mr. T. EVERALL JONES he is indebted for constant attention and sympathy. By availing himself of his talent as a shorthand-writer, the Author has alone been enabled to accomplish his task, the majority of the articles having been written from dictation; while to his acquirements as a student, and to his literary abilities, the work is indebted for no less than thirty-seven articles; among which may be especially mentioned the valuable series on the Commerce of India; on the Trade of Sheffield and Birmingham; and on English Porcelain, Earthenware, and Carpets. From his friend and pupil, Mr. W. BURGESS, the Author has derived fourteen articles, among the more important of which may be pointed out those on English Furniture, on Stained Glass, and part of the series on Enamels, and Damascening. Mr. C. FOWLER, in addition to assisting the Author with occasional extracts from German works, has contributed three valuable articles, respectively on Encaustic Tiles, on German Stoves, and on Terra Cotta. Mr. T. HAYES has furnished two articles, one on Paperhanging, and one on Florentine Mosaics. For the remainder of the work, rather more than one hundred notices, the Author is alone and entirely responsible.

March 7th, 1853.

INDEX.

[The Figures refer to the Numbers of the Plates.]

- Aekermann, Rudolph, his connexion with illustrated literature - 131
- Aekermann and Co., decoration of a box of water colours by them - 131
- Adami, Robert, characteristics of his internal decorations - 141
- Ahmedabad, history of its commerce and manufactures (and see India) - 24
- Aitken, W. C., his remarks on the brass-trade of Birmingham - 43
- Albania, splendour of national costume, patterns and processes - 76
- Albanian embroidery, specimen of - 80
- Alfred Jewel, the, a specimen of filagree or cloisonné enamel - 51
- Alhambra, Mr. Owen Jones's work on the - 136 (and see Moorish Art.)
- Alsacia, its manufactures, particularly cotton-printing - 26
- Altar and Reredos designed by Pugin - 142
- Altar-cloths (see Church Furniture).
- Alto-relievo (see Sculpture).
- Amiens Cathedral, stalls carved by Jean Turpin - 69
- Andirons (see Stoves and Grates).
- André, M., Paris, his iron-castings; account of his establishment; fountain in iron by him - 39
- Andreoli, Maestro Giorgio, and his son, their improved Majolica ware - 11
- "Andromeda," by John Bell, cast in bronze by the Coalbrook Dale Company - 53
- Anglo-Saxon works. Embroidery - 90, 123
- Jewellery - 66, 82
- Angora goat's-wool, or mohair; description of the raw material, processes of manufacture and printing - 64
- Arabesque decoration by Craze - 141
- Arabia, its ancient commerce with India - 104, 140
- Aranjuez (see Spain).
- Architectural decoration: historical sketch of - 141
- Side of a room, by Jno. Thomas, London - 63
- Renaissance decoration in France - 65
- Hand-work stucco in the seventeenth and eighteenth centuries; skill of the workmen; high wages; introduction of papier mâché - 65
- Carton pierre; its employment in Paris; pilaster by Cruchet - 65
- Arabesque by Craze: composition ornaments, by Jackson and Sons - 141
- (See Moorish Art, Craze, J. G., Paper-hanging, Carton Pierre, Glass, Windows, Chimneys, &c.)
- Argand, his improvements in lamps - 139
- Arks, or chests, in old churches and mansions - 90, 125
- Arkwright, origin of the name - 90
- Arkwright, Sir R., his invention of the "water-frame" - 116
- Arms and armour:
- Damascened decorations - 151
- Historical notices of - 101
- Of the Moors and Spaniards - 3, 8
- Pistols, &c., by Zuloaga - 3, 8
- Indian; government manufactory at Hyderabad - 36
- Indian; history and manufacture of wootz, or steel - 124
- Indian arms described; their variety of form and decoration - 135
- Gun-trade of Birmingham; its origin, progress, and peculiarities - 98
- Decoration of ancient and mediæval shields - 117 (See also Birmingham, Sheffield, and Metal-work.)
- Armorial bearings, on ancient hangings and tapestry - 42
- Arras (see Tapestry).
- Arrian, his accounts of the commerce of India - 140
- Artificial stone (see Terra-Cotta).
- Artistic friendships; MM. De Bay and De Serignon; memoir of the former by the latter - 61
- Art-Union of London, works by Minton, Foley, and Hatfield, for - 58, 77
- Astbury, Messrs., their improvements in earthenware - 147
- Athens (see Greece).
- Augsburgh, its manufacture of arms and armour - 171
- Austria, imperial porcelain manufactory at Vienna - 31
- Austria, Emperor of, Minton's dessert service presented to him by her Majesty - 11, 89
- Book-cover, &c., presented to her Majesty by him - 109
- Austrian furniture and art in general - 158
- Axminster carpets; process of manufacture; specimens by Jackson and Graham - 132
- Babylon; rich garments; cloth of gold - 72
- Its ancient commerce with India - 104
- Bacchus, Mr., objects in glass by - 18
- Bach, John Sebastian, his performance before Frederick the Great on Silbermann's "fortepianos" - 59
- Backers, a German, inventor of the "direct-action" pianoforte - 59
- Bacon, John, sculptor, character of his works - 53
- Apprenticed in a pottery; engaged in Miss Coade's terra-cotta manufactory - 74
- Bailey and Co., their works in the Great Exhibition; open-work panel in brass - 94
- Bambaja, his works at the Certosa of Pavia - 50
- Banks, peculiarities of his style of sculpture - 53
- Barbédienne, M., his works in bronze - 13
- Barry, Sir Charles, his connexion with Pugin and Thomas at the Houses of Parliament - 63, 142
- Barry, Edward, his design for pianoforte by Messrs. Broadwood - 83
- Basso-relievo (see Sculpture).
- Batten, of Clapham, his specimen of bookbinding and inlaying - 52
- "Baudekin," a cloth of silk and gold; origin of the term - 42
- Bavaria: Frescoes by Cornelius, at Munich - 73
- Government glass works at Theresienthal - 38
- Bayeux tapestry - 121
- Bazley, Mr., his lecture on the cotton manufacture - 116
- Beauvais ware (see Earthenware).
- Bedsteads (see Furniture, history of).
- Bedstead in metal, by Winfield of Birmingham - 43
- Bedstead in zebra-wood by Leistler and Son, Vienna - 158
- Belfast, Miss Clarke's lace manufactory - 146
- Belgium, ancient wood-carving in - 9
- Bell, John, his Andromeda, Cupid, and Swan Fountain, and Gates, cast by the Coalbrook Dale Company; characteristics of his works; his efforts for the improvement of art-manufactures - 19, 53
- His works executed in Minton's Parian - 58
- Bells, Chinese (see China).
- Benares (see India).
- Berlin (see Prussia).
- Bernardis, Bernardo di, his designs for Austrian furniture - 109, 158
- Bernini, influence of his taste on German art - 49
- Betts, E. L., his seat in Kent, designed by Mr. John Thomas - 63
- Vase in terra-cotta exhibited by him - 74
- Beveridge, Erskine, of Dunfermline; account of his manufactory; specimens of his damask table-covers - 70
- Bielefeld, Mr., his remarks on interior decoration and the use of papier mâché - 65
- Bigelow, Wm., his application of steam power to Brussels carpet weaving - 148
- Bilbao rapiers (see Arms).
- Birkin, of Nottingham; specimen of machine-made lace - 102
- Birks, Simon, his designs for Minton and Co. - 11
- Birmingham, history of the town and its trade - 98
- General notice of its manufactures - 184
- Its "brass toy-trade," extent and importance - 43
- Jewellery in the mediæval style by Hardman - 82
- Stained glass by Messrs. Chance - 86
- Objects in electrotype by Elkington and Mason - 79
- Silversmiths' work by Gough of Birmingham - 98
- Mediæval stove by Hardman - 106
- Account of Hardman's establishment - 142
- Its participation in the Sheffield plate trade - 129
- Bloek and cylinder printing (see Cotton-printing).
- Bobbin net machine (see Nottingham Lace).
- Bohemian glass, specimen by Count Harrach; account of his establishment; processes employed - 18, 38
- Bolsover, Thomas, his invention of Sheffield plating - 99, 126
- Books (see Bookbinding; Illuminated MSS.)
- Bookbinding:
- General notice of processes, "making up," "covering," "finishing," and "inlaying" - 52
- History from the fifteenth to the seventeenth centuries; designs by Holbein - 52
- Specimen of binding and inlaying, by Batten of Clapham - 52
- Works of Roger Payne, Johnson, Lewis, Hayday; Italian and French binding; Grolier, &c., cloth-binding, embossing-machine; designs by Messrs. Owen Jones, Leighton, Cole, Cundall, and Shaw - 96
- Specimen by Leighton - 96
- Precious binding in mediæval times; numerous specimens destroyed at the Reformation - 109
- Book-cover, embroidered, by French of Bolton-le-Moors - 47
- Boot-front, embroidered, from Scinde - 36
- Böttcher, of Dresden, his improvements in earthenware and porcelain - 14, 31
- His adoption of the kaolin discovered by Schnorr - 31
- Boule, of Paris, inventor of the inlaid work called "buhl" - 126
- Boulton and Watt (see Birmingham Manufactures).
- Bow, porcelain works at - 97
- Brambilla, his works at the Certosa of Pavia - 50
- Brass (see Metal-work).
- "Brass toy trade" (see Birmingham).
- Bray, C., of Coventry, his ribbon manufactory - 60
- Brickwork, ornamental (see Terra-Cotta).
- Britannia metal (see Metal-work).
- British and Roman works:—
- Pottery - 87
- Primeval jewellery and goldsmiths' work - 82
- Enamels - 107
- Broadwood and Son, their improvements in pianofortes - 59
- Extent of their manufacture; different forms of instruments, pedals, &c.; ornaments from one of their pianos - 83
- Brongiart, his valuable contributions to the theory, practice, and history of ceramic art - 115
- His accounts of Sèvres porcelain, &c. 11, 14, 31, 78, 81
- Bronze casting: In Prussia - 1
- History and statistics of the trade in Paris - 13
- Group by Vittoz - 13
- Specimens by Matifat - 21
- Rauch's statues of Frederick the Great, Blücher, and other works - 25
- Panels at Brussels, by Geerts of Antwerp - 9
- Marochetti's statue of Wellington at Glasgow - 33
- Brousa, its silk manufacture - 10
- Brown, Alfred, his designs for works in gold and silver; Watherston and Brogden's vase; his connexion with Hunt and Roskell - 66
- Brunelleschi, his talents as sculptor and architect - 50
- Brussels carpets, process of weaving; made by steam in America - 148
- Buekles and Buttons (see Birmingham Manufactures).
- Buhl, panel by Fourdinois of Paris; origin and use of buhl; processes - 126
- Bury, Talbot, his memoir of the late Mr. Pugin - 142
- Byzantine Art and Architecture:
- Taste of the Greeks for rich costume and embroidery: the "Cappa di San Leone," and other specimens; extension of the art in the Middle Ages; its preservation in the Græco-Russian Church - 20, 41, 80, 123
- Invention of point lace - 146
- Silkworms' eggs introduced into Byzantium - 22
- Filagree, or cloisonné enamels of Byzantium, their influence on the Limoges enamels - 51, 107
- Illuminated MSS. of Byzantium; Oriental origin of the art; again transmitted by Mohammedans to the East; resemblance of Indian and Byzantine illuminations - 68
- Use of gold in Byzantine art regulated by artistic principles - 72
- Perforated stone windows - 15
- Cabinet in Ebony by Lienard, Paris - 155
- Cabinet in oak, by Craze, designed by Pugin - 90
- Cairo, perforated windows of plaster at - 15
- Calico-printing, its first introduction and extensive application - 116
- Process described - 120
- Calla, M., of Paris, his successful works in cast-iron - 39
- Cambay, the chief seat of Indian lapidaries - 40
- Campbell, Harrison, and Lloyd, Spitalfields, silks woven by them - 22, 87
- Candelabrum, by Trentanove of Rome - 50
- Cannon (see Arms and Metal-work).
- Canova, his encouragement of Gibson - 17
- Rauch, his pupil - 25
- Caradosso, his processes described by Cellini - 137
- Carcel, his improvements in lamps - 139
- Carpets:—Their introduction and use in England 108, 125
- Those of Persia, India, and Turkey; Indian carpet loom; Axminster carpets; process of manufacture - 132
- Extent of the English manufacture; processes; Kidderminster, Brussels, Wilton; patent tapestry, &c. - 148
- Carton pierre, used at the Louvre in the sixteenth century - 65
- Successive improvements in the manufacture - 65
- Pilaster, by Cruchet of Paris - 65 (and see Papier Mâché.)
- Carving (see Furniture, Wood-carving, Jade Stone, Ivory, &c.)
- Cashmere (see India).
- Cashmere goats, kept by Prince Albert; fabrics manufactured from their wool - 92
- Cashmere shawls, account of the raw material, trade, and manufacture - 28, 44
- Imitations at Paisley - 92 (and see India.)
- Castiglione, Sabba, his account of Italian marquetry - 75
- Cast-iron and cast-steel (see Metal-work).
- Cellini, his works in bronze - 101
- His application of damascening - 101
- Successful imitations of his works by Vechte - 105
- Shields ascribed to him on insufficient grounds - 117
- His enamels admired by Francis I. - 127
- His description of Caradosso's processes - 137
- His account of translucent enamels on relief - 145
- Ceramic art (see Earthenware and Porcelain).
- Ceylon, its ancient commerce - 104, 140, 149
- Chairs (see Furniture).
- Chalices and patens, of the mediæval era, their forms and enrichments - 41
- Ancient specimens in France - 113
- Specimen by Froment-Meurice - 137
- Chambers, Sir W., his descriptions and imitations of Chinese art - 54
- His success in internal decorations - 141
- Chance, Messrs., stained glass by them - 86
- Chantilly, manufacture of porcelain at - 14

INDEX.

Charlemagne, his sword and crown, at Vienna 101, 113
 Charles I., his valuable tapestries and other hangings 42
 His pictures and other works of art - 150
 Charlottenberg, Ranel's statue of Queen Louise - 25
 Fountain by March - 45
 Chelsea porcelain works - 90, 125
 Chests, old, carved and painted - 90, 125
 Chimneys and chimney-shafts in Mediæval and Tudor buildings - 74, 121
 China, its arts and manufactures; early trade in silk 22
 Lacquer-work described; its resemblance to that of India - 2, 32
 Looking-glass frame carved in ebony - 54
 Interior decorations, perforated carving and fret-work, windows, furniture, use of glass, and metallic mirrors - 54
 Bronzes inlaid with silver wire; bells, gongs, and other objects of mixed metal - 85
 Paper-hangings - 95
 Porcelain imported early into England - 97
 Antiquity of its arts and manufactures - 104
 Jade-stone vases - 118
 Enamels; probable introduction of the art from Persia; peculiarities of execution; specimens (and see Porcelain). - 127
 Chintz, by Japuis and Son of Paris - 116
 Chocolate cup in silver, by Lebrun of Paris - 113
 "Christ-Engel," legend of the; bas-relief by Rietschel 5
 Chryselephantine art - 21
 Churches, carved roofs of (see Wood-carving).
 Church furniture, by French of Bolton-le-Moors - 47
 Church plate, by Skidmore of Coventry - 41
 (and see Chalices and Patens.)
 Cibber, peculiarities of his style of sculpture - 53
 Cinque-cento sculpture in Italy, its history - 50
 Clark, T., the "Coventry Ribbon," designed by him 60
 Clarke, and Clarke and Henderson, their improvements in paper-hangings - 95, 100
 Clarke, Miss, her revival of point lace, her manufactory at Belfast - 146
 Clementi, Muzio, his improvements in pianofortes - 59
 Clodion, his works in bronze - 13
 Cloisonné enamel (see Metal-work, *Enamels*).
 Cloth of gold and silver (see Tapestry, India, and Kinob).
 Coade, Miss Eleanor, her revival of terra-cotta - 74
 Bacon, the sculptor, engaged in her manufactory 74
 Coal, its early employment in England - 121
 Coalbrook Dale Iron Company; its history; extent of the works - 19
 Fountain and Gates and statue of "Andromeda" executed by them in bronze - 19, 53
 Coffret, or jewel-case, in ivory, by Matifat of Paris - 21
 Coins and medals, Birmingham manufacture of - 134
 Collard and Collard, pianofortes by - 59
 Collas, M., his works in bronze - 13
 Colour (see Principles of Art).
 Colour-printing on textile fabrics (see Cotton and Woollen).
 Constantinople (see Byzantium and Turkey).
 Coutreras, Raphael, his decoration of the Queen of Spain's cabinet - 136
 Cooperatoria, or ancient ornamental book-covers (see Bookbinding).
 Copeland, Alderman, his manufactory at Stoke-upon-Trent; porcelain by him - 147
 Corinthian brass (see Metal-work: *Brass*).
 Cornelius, memoir of, and notice of his works; silver shield by him, presented by the King of Prussia to the Prince of Wales - 35, 73
 Cosmati family, their works in ornamental sculpture at Rome - 50
 Costume (see Albania, Byzantium, Embroidery, Greece, India, Russia, Tunis, &c.)
 Cotton manufacture: history of printing cottons in France - 26
 Fine muslins and cotton yarn of Paisley - 92
 History and statistics of the manufacture in England - 116
 Extreme fineness of English yarn - 116
 Great and increasing consumption of raw material - 116
 Printing processes described - 120
 Manufacture in Switzerland - 144
 (See, also, India.)
 Courtey, Pierre, his works in enamel - 156
 Cousin, Jean, stained glass designed by him - 114
 Coventry: origin and progress of the ribbon trade; improvements in the manufacture; local statistics; "the Coventry ribbon" - 60
 Crace, J. G., his works:—Designs for printed mohair Cabinet in oak, designed by Pugin - 90
 Carpet in the mediæval style, designed by Pugin 108
 Painted arabesque - 141
 Cradle of Henry V. - 125
 Cradle carved in boxwood by Rogers for her Majesty - 130
 Crane, Sir F., his tapestry manufactory at Mortlake - 42, 108
 Crompton, his invention of the "mule" - 116
 Cruchet, of Paris, pilaster in carton pierre and other works by - 65
 Crystal fountain, by Osler of Birmingham - 23
 Crystal vases and Indian jewellery - 40
 Culmbach of Berlin, his works in metal - 1
 Cupboards (see Furniture).
 "Cupid and Panther," bas-relief, by Rietschel - 29
 Cutlery (see Metal-work, and Sheffield).
 Dacca (see India).
 Dacca muslins, described by Tavernier - 157
 Dacca, progress of its cotton manufacture in the 18th century; ultimate decline - 157
 Daggers (see Arms, Metal-work, and Sheffield).
 Damascene blades - 3, 135
 Damascening, practised in China at a remote period 85
 Its application to weapons; employed by Cellini 131
 History and processes of the art; specimen by Falloise of Liège - 151

Damascening (*cont.*):—
 (and see Metal-work.)
 Damask Table-covers, by Beveridge of Dunfermline; processes of linen manufacture; varieties of production - 70
 Damer, Mrs., characteristics of her sculpture - 53
 Her models in terra-cotta - 74
 Darnét, Madame, her discovery of china clay at St. Yreix - 31
 De Bay, Auguste, of Paris, the "First Cradle," a group in marble, by; memoir of the artist - 61
 Decoration (see Architectural Decoration).
 Delft ware (see Earthenware).
 Delhi (see India).
 Della Robbia, Luca, his improvements in fictile art 11
 His employment of terra-cotta - 45
 Characteristics of his style - 50
 Memoir and account of his discoveries, and those of his family - 67
 Busts of the Emperors at Hampton Court Palace 74
 Minton's imitations of Della Robbia ware - 67
 Della Quercia (or Della Fonte), his famous fountain at Siena, and other works - 50
 Denière, M., bronze works executed for his establishment - 13
 D'Eon, Chevalier, his taste in bookbinding - 96
 Department of Practical Art, collection of Indian fabrics in its Museum - 72, 151
 Deponilly of Paris, printed muslins and other productions, by - 26
 Derby porcelain works - 97
 Derbyshire, imitations of Florentine mosaic - 103
 De Scrignon, M., his memoir of Auguste De Bay, sculptor - 61
 Design (see Principles of Art, Schools of Design).
 Designs of French and Indian productions (see France and India).
 De Staël, Madame, her censure of German art - 5
 Diana of Poitiers, bindings of her books - 96
 Dieterle, G., coffret, lamp, &c., designed by him for Matifat of Paris - 21, 139
 Sèvres Vase, "Rimini," designed by him - 31
 Donatello, characteristics of his style - 50
 Drake, Frederiek, of Berlin, a pupil of Rauch, reliefs from his pedestal to the statue of Frederick William III.—subject, "The Pleasures of Public Gardens;" notice of his other works - 49
 Dresden porcelain manufacture, its history - 14
 Dudgeon, J. W., his account of Chinese jade-stone carvings - 118
 Dunfermline, history of its linen manufacture; "Damask Table-covers," by Beveridge, from designs by Owen Jones and Walter Paton - 70
 Dupleschin and Dieterle, MM., their designs for theatrical scenery - 21
 Durer, Albert, his carvings - 9
 Bronze statue of him by Rauch - 25
 His engravings on ancient arms - 101
 Durham Book of the Gospels, its sumptuous binding 109
 Dutch tiles, remarks on their design and execution - 106
 Earthenware:
 Majolica; its history; specimen of its revival by Minton - 11
 Della Robbia ware described; works of Luca and his family; imitations by Minton - 67
 Vase in Beauvais ware by Mansard - 6
 History of the manufacture in England, 81, 89, 97, 147
 History of the manufacture in France - 78
 Old drinking-vessels of different materials - 89
 Glazed tiles, ancient and modern; their application to stoves by Minton - 106
 Their employment for stoves in Germany - 55
 Minton's terra-cotta figure of Galatea, and Majolica garden vases - 97
 Vase and dish in Parian; description of that material, and process of manufacture - 58
 (and see Porcelain, Terra-Cotta and Tiles.)
 East India Company; historical sketch of its origin and progress - 149, 157
 Eastlake, Sir C., his remarks on Italian marquetry 75
 On the style of design suited to different degrees of relief in sculpture - 133
 Ebelman, M., of Sèvres, his exertions in the revival of enamelling - 57, 115
 Ebony Cabinet by Licnard, Paris - 155
 Echarts, G. and F., of Chelsea, their improvements in paper-hangings - 95
 Education in Art (see Schools of Design).
 Edward IV., his library of MSS. - 143
 Egypt, sculpture in ivory in - 21
 Its ancient intercourse with India 104, 140, 149
 Electrotype (see Metal-work).
 Elephants known to the ancients, and in Europe in the Middle Ages - 16, 140
 Elephant trapping from India - 16
 Elers, Brothers, their improvements in earthenware 147
 Elkington and Mason, Messrs., objects executed in electrotype by them; notice of their establishment - 79, 138
 Emanuel Philibert, statue of, by Marochetti - 33
 Embroidery:—
 English vestments, &c., sent to England by St. Gregory, and imitated by Anglo-Saxons 90, 123
 Applied to hangings for walls and to garments - 42
 Book-cover, by French of Bolton; practical details and authorities on the art; reference to old English specimens - 47
 Applied to Nottingham Lace - 30
 Specimens from Switzerland - 144
 Byzantine, the "Cappa di San-Leone" - 41, 80
 History of costume embroidery of the Greek empire - 80
 Its characteristics and influence on other nations 123
 Albanian, specimen of - 80
 Greek (modern), specimen of, pattern and prices 76
 Embroidered bags - 123

Embroidery (*cont.*):—
 Russian, specimen of; its resemblance to that of Byzantium - 20
 Turkish, its processes and characteristics - 10
 Tunisian, specimens from saddles - 4
 Indian: from Dacca, its peculiarities - 12
 On elephant trapping - 16
 On Cashmere scarf - 28
 On boot-front from Seinde - 36
 On Cashmere shawl; brilliancy of effect - 44
 On black cloth - 84
 Processes described; the art only practised by Mahomedans - 56
 Appliqué - 88
 Enamels (see Metal-work).
 Enamelled slate by Magnus - 103
 Encaustic tiles; history of their manufacture and use for pavements; specimens by Minton - 128
 Engraving on glass, processes employed - 18
 Escrutoire, by Wettli of Berne - 7
 Evans and Co., printed woollen table-cover, by - 120
 Evelyn, his notice of Chinese porcelain - 97
 His patronage of Grinling Gibbons - 53, 130
 Faïenza-ware, a term applied to majolica (see Majolica).
 Falconnet, his statuettes in Sèvres porcelain - 14
 Feilner and Co., of Berlin, their improved earthenware stoves - 55
 Ferrara steel; Andrea di Ferrara - 3, 101
 Fétis, M., of the Conservatoire of Brussels, on the history of pianofortes - 59
 Feuchères, M., his designs for works in bronze, &c. 13, 93
 Fiamingo, his carvings - 9
 Fictile art (see Earthenware and Porcelain).
 Filagree enamel (see Metal-work: *Enamels*).
 Fire-places (see Chimneys, Stoves).
 "First Cradle," by De Bay of Paris; memoir of the artist - 61
 Fischer of Berlin, his works in bronze - 1
 Prince of Wales's shield modelled by him 35, 73
 Flanders, ancient wood-carving in - 9
 Silk manufacture in - 22
 Arras and other tapestry - 42
 Flax, its growth and manufacture; heckling, spinning, and weaving - 70
 Flaxman, his adaptation of actual incidents; his encouragement of Gibson - 17
 His works in terra-cotta - 74
 His Shield of Achilles - 117
 Floors of mediæval buildings - 108
 (and see Carpets, and Furniture).
 Floreuce, works of Luca della Robbia at - 67
 Florentine mosaics and marquetry - 75
 Florentine mosaic; history of the art; description of the Fabrica Ducale; processes; imitations by Woodruff of Bakewell - 103
 Flues (see Chimneys).
 Foley, J. H., his works reproduced in Parian - 58
 Memoir, and notice of his works; his statue, "A Youth at a Stream," cast in bronze by Hatfield - 77
 Fortoul, Hippolyte, his description of Rietschel's sculpture - 5
 His account of the works of Rauch of Berlin - 25
 Fountains (see Crystal, Iron, Terra-Cotta, &c.)
 Fourdinois of Paris, buhl panel by - 126
 Fowler, Charles, his paper on terra-cotta - 74
 France, notices and illustrations of its arts and manufactures:—Bronze casting - 13
 History of the porcelain manufacture at St. Cloud, Chantilly, Vincennes, and Sèvres - 14
 Silk manufacture - 22
 Cotton-printing at Rouen, &c.; M. Perrot's machine - 26
 Iron-casting; fountain by André; works of Calla 39
 Ribbons, history of the manufacture; specimens from St. Etienne - 60
 History of wood-carving - 69
 History of the manufacture of pottery and porcelain - 78
 Objects in ivory, gold, and silver, by Froment-Meurice - 93, 137
 Bookbinding, by Grolier, Padaloup, &c. - 96
 Paper-hangings - 100
 Shield and pistols by Lepage Moutier - 105
 Stoves, recent artistic improvements - 106
 Jewellery by Rudolphi - 111
 Chocolate-cup in silver by Lebrun - 113
 History of gold and silversmiths' work - 113
 History of stained glass - 114
 Lyons silk - 119
 Chintz by Japuis and Son - 116
 Buhl panel by Fourdinois - 126
 Enamelling - 145
 Manufacture and improvements in lamps - 139
 Statistics of the jewellery and cabinet-making trades of Paris - 153, 155
 (see, also, Renaissance, Wood-carving, History of Art, Sèvres, St. Yreix, &c.)
 Francis I., his admiration of Cellini's enamels - 127
 French, J. G., of Bolton, book cover by - 47
 Fresco-paintings of Cornelius - 73
 Friczes by Minton, in imitation of Luca Della Robbia 67
 Froment-Meurice, of Paris, his artistic career; description of his establishment and principal works; objects in ivory, gold, and silver 93, 137
 Fulham earthenware and porcelain works - 89, 97
 Furniture:—History of, in England 90, 125, 143, 150
 Sideboard, &c., by Snell, designed by Marochetti - 125, 150
 Snell's process of seasoning wood - 125
 Marquetry, by Trollope - 75
 Sideboard by Jackson and Graham - 143
 Cabinet by Crace, designed by Pugin - 90
 French, in the seventeenth century - 69
 Buhl panel by Fourdinois - 126
 Origin and use of buhl; process of inlaying 126
 Bookcase, by Leistler and Sons of Vienna - 109
 Chinese - 54

INDEX.

Furniture (*cont.*):—
 Ebony cabinet by Licnard, Paris - 155
 Of Austrian mansions; bedstead by Leistler (see, also, Carpets and Wood-carving.) 158

Garrard, Messrs., their works as gold and silversmiths and jewellers; specimens of plate by them - 46
 Geerts, Brothers, of Antwerp, their wood-carvings, "Massacre of the Innocents" - 9
 Geiss of Berlin, his cast in zinc of the "Amazon" by Kiss - 1
 Gelatine moulds employed for casts of works of art - 79
 Genoese point-lace - 146
 Gerente, M., of Paris, stained glass by him - 114
 German stoves, their ordinary form and successive improvements - 55
 Germany:—History of its glass manufacture - 38
 History of sculpture in - 49
 Old painted linen cloths for mural decoration - 71
 Its old earthenware - 89
 Its paper-hangings - 100
 Ghiberti, characteristics of his style - 50
 Gibbons, Grinling, memoir and works of - 53, 130
 Gibson, John, his adaptation of actual incidents; "The Hunter" - 17
 His works reproduced in Copeland's statuary porcelain - 58
 "The Hours leading forth the Horses of the Sun," a basso-relievo - 133
 Giorgio (Maestro) and his son, their improved majolica ware - 11
 Girard, Frères, their improvements in lamps - 139
 Girardon, his works in bronze - 13
 Glasgow, Wellington statue by Marochetti - 33
 Glass:—Used by the Romans for windows - 15
 History of its manufacture in England; process of engraving - 18
 Casting, annealing, grinding, and polishing; constituents of flint-glass; its colour influenced by oxygen - 23
 Works of F. and C. Osler; the Crystal Fountain - 23
 Objects cut and engraved by Green, Bacchus, and Pellatt - 18
 By Pellatt, Naylor, and Green - 110
 History and description of the Venetian processes; invention of cut-glass ascribed to Lehmann - 110
 History of the manufacture in Germany; specimen of Bohemian glass; Count Harrach's manufactory, materials and processes employed; productions of Silesia and Bavaria - 38
 Its use in China - 54
 Stained; its history in England - 86
 In France - 114
 Glazed tiles (see Tiles).
 Goat's wool (see Cashmere goats and Mohair).
 Gobelin tapestry, its first importation into England - 42
 Origin of the manufacture - 108
 Gold and goldsmith's work (see Metal-work).
 Gold thread used in Indian embroidery; process of its manufacture - 12
 Gold cloth, gold and silver tissue (see India, Kincocks).
 Gough of Birmingham, silversmiths' work by - 98
 Goujon, Jean; his carvings in wood - 69
 Grates and stoves (see Stoves).
 Greasley and Hoperoff, Nottingham, lace-flounce by - 30
 Greek art: chryselephantine, or combination of ivory with gold, &c. - 21
 Of the Lower Empire (see Byzantium).
 Greek Church in Russia; its preservation of Byzantine types - 20
 Greece and Albania: splendour of national costume; embroidered jacket; patterns and processes - 76
 Embroidered bags from - 123
 Green, J. G., objects in glass by - 18, 110
 Grolier, Count, bindings of his books - 96
 Guettard, his discovery of china-clay near Alençon - 31
 Guns (see Arms and Metal-work).
 Gun-stand from Tunis - 34

Hamon, M., Sèvres vase decorated by him - 14
 Hancock, Joseph, of Sheffield, his manufacture of plated goods and Britannia metal - 99, 129
 Hardman, J., his works; his association with Pugin, his establishment at Birmingham - 142
 Mediaeval stove designed by Pugin - 106
 Jewellery - 82
 Altar and Reredos - 142
 Hargreaves, his invention of the spinning-jenny - 116
 Henry VIII., his collection of pictures - 143
 Harrach, Count, specimens of Bohemian glass; notice of his establishment; processes employed - 38
 Harwood, his improvements in paper-hangings - 95
 Hatfield, J. A., notice of his works; his bronze cast, "A Youth at a Stream" - 77
 Hayday, his taste and skill in bookbinding - 96
 Heathcoat, Jno., his invention of the "bobbin-frame" - 102
 Hengrave Hall, inventories; early use of carpets and fire-irons - 121
 Henry V., his cradle, preserved at Brislington, near Bristol - 125

HISTORY OF ART AND MANUFACTURES:—
 Notices of sculpture in England; works of Gibbons, Cibber, Roubiliac, Wilton, Banks, Nolletkens, Bacon, Mrs. Damier - 53
 Wood-carving: English mediæval roofs, screens, stalls, &c., in churches and old houses - 62
 Memoir and works of Gibbons and his successors - 130
 Wood-carving in France - 69
 Moorish art, its origin; preservation of traditional patterns - 15
 Renaissance decoration in France - 65
 English paper-hangings - 42, 71, 90, 95
 French paper-hangings - 100
 Perforated windows in Moorish, Indian, and Persian architecture - 15, 34
 Cashmere shawl manufacture, causes of its decline - 44
 Indian illuminated MSS., the art probably introduced from Byzantium - 68

HISTORY OF ART (*cont.*):—
 Hindoo and Mohammedan elements of Indian works of art - 84
 Antiquity of Indian arts and commerce 72, 104, 140, 149
 Bronze-casting in France and Prussia - 1, 13
 Jewellery in England; British, Irish, Roman, Saxon, and mediæval - 82
 Gold and silversmiths' work in France - 113, 153
 Caradosso's processes - 137
 Ancient and mediæval shields and bucklers, and modern imitations - 118
 Ancient enamels, filagree or cloisonné - 51
 Champlevé or Limoges - 107
 Late Limoges - 145, 156
 Damascening - 151
 Electrotypes, its invention and application - 79
 Use of brass, latten, and other mixed metals in England - 94
 Trade of Birmingham - 98
 Sheffield and its manufactures - 99, 129
 Old English grates and stoves - 121
 Manufacture of Indian steel - 124
 Resemblance of Russian and Byzantine embroidery, &c. - 20
 Origin and practice of embroidery in the East - 56
 Sumptuous costumes, cloth of gold, &c. - 72
 Costume embroidery of the Greek empire - 72, 80, 123
 Silk trade of Lyons - 119
 Cotton manufacture and printing - 116, 120
 Woollen manufacture - 91
 Use and manufacture of carpets in England - 108
 Persian, Turkish, and Indian carpets; Indian loom; Axminster, processes of manufacture - 132
 Nottingham lace - 102
 Hand-made lace - 146
 Pillow-lace trade of Honiton - 154
 Ancient arms and armour - 101
 Della Robbia ware, with memoirs of the family - 67
 English earthenware and porcelain - 81, 89, 97, 147
 French earthenware and porcelain - 78
 Terra-cotta in England - 74
 Eneustic tiles for pavements - 128
 Stained glass in England - 86
 In France - 114
 Architectural decoration - 141
 English furniture - 90, 125, 143, 150
 Italian and English marquetry - 75
 Florentine mosaic - 103
 Bookbinding - 52, 96
 Mediæval precious bookbinding - 109
 Hoffman of Berlin, white porcelain stove by - 55
 Holbein, his designs for bookbinding - 52
 For jewellery - 66
 His gateway at Whitehall - 74
 Holland, ancient wood-carving in - 9
 Delft earthenware - 89
 Holland, the architect, his encouragement of arabesque decoration - 141
 Hoole, Robson, and Hoole, Sheffield, hot-air and other stoves by - 99, 129
 Honiton Lace: specimen by Mrs. Treadwin; her exertions to promote the trade - 154
 Hope, Thomas, his remarks on Moorish architecture - 136
 Hossauer of Berlin, the Prince of Wales's shield executed by him - 35, 73
 "Hours, the, leading forth the Horses of the Sun," a basso-relievo by Gibson - 133
 Howell, James, and Co., London, silk woven for them - 22
 "Huguenot lace" - 146
 Hunt and Roskell, their works - 27, 117
 Vechte engaged by them - 105, 117
 Enamelled vase by - 156
 "Hunter, the," a statue by Gibson of Rome - 25
 "Hunter and Panther," by Jerichau of Copenhagen; memoir of the artist - 57
 Hutton, William, his notices of the early history of Birmingham - 98
 Hyderabad (see India).

Illuminated MSS. of the Greeks and Romans; of Byzantium; of ancient and modern India - 68

INDIA, notices and illustrations of its art and manufactures:
 History of its commerce, ancient and modern - 140, 149, 157
 Lacquer from Lahore - 2
 Muslins exported to Turkey - 10
 Embroidery from Dacca - 12
 Bullion embroidery - 140
 Distinction of castes, its effects on art - 12
 Manufacture of gold thread for embroidery - 12
 Use of perforated stone windows - 15
 Embroidery from Dacca - 56
 Bullion Embroidery - 140
 History and process of embroidery; practice of the art confined to the Mohammedans; skill of the *rufugars*, or darners - 56
 Mr. Owen Jones on principles of colour - 36, 56
 Elephant trapping, embroidered - 16
 Kincocks, their splendour; silk trade of Moorshedabad - 16
 Kincocks woven at Ahmedabad and Benares - 24
 Process of weaving in India - 24
 Trade of Ahmedabad in silk, ribbons, paper, &c. - 24
 Scarf-end from Cashmere; Cashmere shawl manufacture - 28
 Specimen of lac-work; Indian decorations of plane surfaces - 32
 Embroidered boot-front from Scinde; manufacture of arms at Hyderabad; trade of Scinde in leather, silk, arms, &c.; principles of colour applied to decoration - 36
 Artistic superiority of the productions of the northern provinces - 40
 Crystal vases and jewellery; the lapidary's wheel; tools for stone-cutting; rock temples - 40
 Native gold and silversmiths, passion for jewellery, silver filagree processes, &c. - 40
 Cashmere shawl; brilliancy of embroidery con-

INDIA (*cont.*):—
 trusted with woven Indian fabrics; ingenuity and cunning of shawl dealers - 44
 Cashmere shawls: looms; process of weaving, cleaning, bleaching, &c.; cost of shawls; decline of the manufacture - 44
 Dacca muslin scarf-end, embroidered; Mr. Taylor's work on the Dacca manufacture, the town and district, raw material, spinning, qualities and price of yarn, fine muslins - 48
 Illuminated manuscripts: ancient types; similarity of old and modern specimens; decorations probably derived from Byzantium - 68, 149
 Kincock pattern; combination of gold and colours; remarks by Owen Jones; love of the ancients for cloth of gold, &c.; splendid robes of Babylon, Rome, Byzantium, and modern India - 72
 Embroidery on black cloth; Hindoo elements of modern art in India - 84
 Embroidery (appliqué) on crimson silk; Mohammedan elements of Indian art exemplified in architecture - 88
 Decoration of a saddle-cover - 104
 Antiquity of Indian art and commerce - 104, 140, 149, 157
 Lacquer-work from Cashmere; principles of art in surface decoration; conventionalities of form; harmony of ground, pattern, outline, and colour - 112
 Trade with England in cotton goods - 116
 Carpets and carpet-loom - 132
 Steel, or wootz, its antiquity and perfection; process of manufacture - 124
 Enamels from arms - 124, 135
 Variety of arms and armour in form and decoration - 135
 Group of enamelled objects; processes employed; goldsmith's work in Cutch - 152
 Inlaying (see Marquetry, Buhl, Bookbinding).
 Irish linen manufacture; excellence of damasks - 70
 Irish (Celtic) jewellery - 82
 Iron (see Metal-work).
 Italy, its art and manufactures:
 Earthenware in the sixteenth century (Majolica) - 11
 Silk manufacture - 22
 Sculpture, history of - 50
 Florentine origin of marquetry - 75
 Bookbinding of the time of the Medici - 96
 Ivory, its combination with gold, &c. in ancient art - 21
 Ivory-carving in Assyria, Greece, and Egypt - 21
 Coffret by Matifat of Paris - 21
 Ivory-carving in France, its history - 69
 Group by Froment-Meurice of Paris - 93
 Throne and footstool presented to Her Majesty by the Rajah of Travancore - 157

Jackson of Battersea, his improvements in paper-hangings - 95
 Jackson and Graham, Axminster carpet and side-board by - 132, 143
 Jackson and Son, composition decorations by - 141
 Jacobi of Berlin, his works in bronze - 1
 His claim to the invention of the electrotypes process - 79
 Jacquard-loom, its application to weaving damasks - 70
 To silk-weaving - 87
 To lace-making - 102
 To carpet-weaving - 148
 Jacquard, memoir of, account of his inventions, and their effects upon the silk-trade of Lyons - 119
 Jade-stone vases from China; nature of the material, mode of working, use, prices, &c. - 118
 Jameson, Mrs., her memoir of Gibson of Rome - 17
 Japan porcelain, imitated in the Delft ware - 89
 Japanned goods, Birmingham manufacture of - 134
 Japuis and Son of Paris, specimens of chintz by - 116
 Jerichau of Copenhagen, memoir and notice of his works; his marble group, "The Hunter and Panther" - 57
 Jerichau, Madame, her paintings - 57
 Jesse windows (see Stained Glass in France).
 Jessop, Mr., of Sheffield, his manufacture of plated goods and Britannia metal - 99, 129
 Jewels, false, employed in Byzantine embroidery - 123
 Jewel-case in ivory, by Matifat of Paris - 21
 Jewellery (see Metal-work: Silver).
 Jones, Inigo, characteristics of his architectural decorations - 141
 Jones, Owen, his work on the "Alhambra" quoted; descriptions of Moorish architecture - 15, 136
 His application of Moorish perforated domes to modern purposes - 15
 His remarks on Indian decorations of plane surfaces, conventional representations, absence of shadow, balance of colour, &c. - 32, 152
 On the use of colour by the ancients, and by the Moors - 56
 Damask table-cover designed by him - 70
 His lecture on "Colour in the Decorative Arts;" remarks on the combination of gold with colours, especially in Indian productions - 72
 On the patterns of chintz draperies - 116
 Jouhannaud and Dubois of Paris, vase in white china by - 78
 Justinian, his efforts to promote the silk trade - 22

Kent, the architect, his internal decorations - 141
 Kessler of Switzerland, his carvings - 7
 Kidderminster Carpets:—Establishment of the manufacture - 108
 Process of weaving - 148
 Kilns, ancient, for baking encaustic pavement tiles - 128
 Kincocks (see India).
 Kiss of Berlin, notices of his works - 1, 25
 Knecht of Paris, niche carved in wood by - 69
 Kocchlin, Daniel, his cotton-print works at Mulhausen - 26
 Kraft, Adam, his carvings in stone - 9
 His sculpture at Nuremberg - 49

INDEX.

Labarte, Jules, his account of the royal manufactory of Sèvres - 14, 31

Lace: Nottingham run-lace described; specimen by Greasley and Hopcroft - 30

Invention of the bobbin-net machine; successive improvements; varieties of machines and products; statistics of the trade; specimen of machine-lace by Birkin - 102

Hand-made: its history; point-lace revived by Miss Clarke - 146

Bone or pillow-lace; variety of "grounds;" popularity of Flemish lace; Mrs. Treadwin's exertions to promote the art at Honiton - 154

Lace-making in Switzerland - 144

Lacquer-work from Lahore; description of "lac," "lac-dye," &c. - 2

Character of design and ornament - 32

That of China described; its resemblance to that of India - 32

Specimen from Cashmere - 112

Lacquering (see Metal-work: Brass).

La Fontaine, his works in bronze - 13

Lahore (see India).

Lambert, M., of Sèvres, his exertions in the revival of enamelling - 51

Lambeth, potteries first established there - 89

Lamps, manufacture of, in Paris; recent improvements - 139

Lamp, pendant, in Sèvres porcelain - 115

Lamp, by Matifat, Paris - 139

Lamp, by Winfield, Birmingham - 134

Lanfranco of Pesaro, his application of gold to earthenware - 11

Lanyer, Jerome, his patent for flock-hangings - 95

Lapidaries' work (see Jade-stone, Florentine Mosaic, and India).

Laquine of Paris, his works in bronze - 1

Latten (see Metal-work).

Lattice-work in Moorish architecture - 34

Leather, Russian embroidery on - 20

Leather manufactures of Austria; bookbinding; book-cover presented by the Emperor to her Majesty - 109

Leather-hangings for walls - 71

Leavers, John, his lace-making machine - 102

Lebrun of Paris, chocolate-emp in silver by; notice of his other works - 113

Lecterns of brass in old churches - 94

Lee, William, his invention of the stocking-loom - 22

Lees, R. and Co., specimens of printed mohair, description of the material and manufacture - 64

Lehmann, Caspar, invention of glass-cutting ascribed to him - 110

Leighton, J., bookbinding by - 96

Leistler and Sons, Vienna, Gothic bookcase by - 109

Bedstead in zebra wood - 158

Leland, his account of Birmingham - 98

Lenoir, Alexandre, his collection of relics of French art - 51

Lepage-Moutier, Paris, shield and pistols by - 105

Lewis and Allenby, London, silks manufactured for them - 22, 87

Lienard, M., his wood-carvings - 93

Ebony cabinet designed by him - 155

Limoges, colony of Venetians established there; influence of Byzantine art on the Limoges enamels - 107

Limoges enamels (see Metal work: Enamels).

Limousin, Leonard, his works in enamel - 156

Linen fabrics, growth and preparation of flax, spinning and weaving, damask table-covers by Beveridge of Dunfermline - 70

Linen cloths, painted in water-colours, anciently used as mural decorations - 71

Linton, W., on water-colours in the Great Exhibition - 131

Lockett, his improved mode of engraving cylinders for cotton-printing - 120

Lombardy, the early sculptors of - 50

Lombe, Sir Thomas, his improvements in silk-throwing - 22

Longman and Broderip, their improvements in pianofortes - 59

Looking-glass frame carved in ebony, from China Loom (see Jacquard-loom, Lace, &c.).

Lower, M. A., on the ancient iron-works of Sussex - 99

Lusson, M., Paris, stained glass by him - 114

Luynes, the Duc de, his patronage of Froment-Meurice, Vechte, Carl Wagner, &c. - 93, 105, 111, 137, 145

Lyons silk (see France).

Macquer, his application of the china-clay of St. Yreix to the production of Sèvres hard porcelain - 31

His approval of the Chelsea porcelain - 97

Mader, Frères, their specimens of paper-hanging - 100

Madrid (see Spain).

Magni, Pietro, of Milan, his group in marble, "The First Step" - 37

Magnus, Mr., his enamelled slate in imitation of Florentine mosaic - 103

Mahogany, introduced by Dr. Gibbons - 150

Majolica ware, its history; revived manufacture by Minton - 11, 97

Malvern, Great, number of pavement tiles in the church; ancient kiln for baking them - 128

Manchester cotton-works; improved designs - 26

Mansard, M., vases in Beauvais ware - 6

Manuscripts, old English, their elaborate bindings and illuminations - 109, 123

Collected by Edward IV. - 143

Indian and Byzantine (see Byzantium, India, and Illuminated Manuscripts).

March, of Theiergartenfelde, near Charlottenberg, his fountain in terra-cotta - 45

Marochetti, the Baron, memoir of; notice of his "Richard Cœur de Lion" and other works in sculpture - 33

Furniture designed by him for Snell - 125

Marquetry:—

Its origin in Florence, notices of ancient specimens; practised in France; its history in England; modern practice - 75, 150

Specimens by Messrs. Trollope - 75

(and see Florentine Mosaic).

Marrel, Frères, silversmiths' work by them - 153

Mathevon and Buvard, of Lyons, silk by; their former exhibited works - 119

Matifat, a pupil of Vechte, his ivory casket and other artistic productions - 21, 139

Medals and coins, Birmingham manufacture of - 134

Mediæval antiquities and imitations:—

Jewellery; historical sketch of - 66, 82

Earthenware, found at Lincoln - 81

Drinking-vessels of different materials - 81

Carpet, designed by Pugin - 108

Stove, designed by Pugin for Hardman, of Birmingham - 106

Wall decorations (see Paper-hanging).

Meissen, porcelain manufacture of - 14

METAL-WORK:—

Bronze:— Casting in Prussia - 1

Panels by Geerts of Antwerp - 9

Group by Vittoz of Paris; history of bronze casting in France - 13

Rauch's statues of Frederick the Great, Blücher, Albert Durer, &c. - 25

Marochetti's statue of Wellington, at Glasgow - 33

Statue of Justus Moser at Osnabrück, by Drake of Berlin - 49

Composition of bronze in ancient and modern times - 77

"A Youth at a Stream," by Foley, cast by Hatfield - 77

Bronzes and other mixed metals in China; vases inlaid with silver wire, bells, gongs, vessels of white copper, &c. - 85

Bronze employed for weapons by the ancient Britons - 94

Gold, Silver, Jewellery, and Enamels:—

Gold enamelled vase, by Watherston and Brogden; value of gold and silver; works on the subject by Mr. Watherston - 66

Gold-thread in Indian woven fabrics, its manufacture - 12

Cloth of gold, admired by the ancients; kincobs of modern India; principles regulating the combination of gold with colours - 72

Silver mediæval plate; the two-handled chalice; remarks of Theophilus; various forms of chalices and patens; specimens described in ancient inventions - 41

Repoussé work described; Caradosso's processes - 137

Abundance of plate in England in the 17th century - 89

Its arrangement on "cupboards" - 125

Redgrave on the theory of its ornamentation; adaptation of design to material; repoussé and chasing; works of Vechte and Wagner - 111

Silver vases by Hunt and Roskell - 27, 144

Silver shield (of Milton, Shakspeare, and Newton) by Vechte, for Hunt and Roskell - 117

Decorations of ancient and mediæval shields and salvers - 117

Plate by Messrs. Garrard, London; notice of their works; processes of repoussé, casting, stamping, piercing, finishing, polishing, &c. - 46

Specimens by Gough of Birmingham - 98

History of the trade of Birmingham - 98

Silver centre-piece by Wagner of Berlin; his reasons for oxydising the metal - 35

Eminent Prussian artists; Prussian jewellery and enamels - 35

Silver shield by Cornelius, presented to the Prince of Wales by the King of Prussia, described; memoir and works of Cornelius - 73

Chocolate cup in silver, by Lebrun of Paris - 113

History of gold and silversmith's work in France - 113

History of jewellery in France, continued; present state of the trade in Paris; imitative gems - 153

Memoir of Froment-Meurice of Paris, and account of his principal works - 93, 137

Jewellery, enamel, and niello works of the late Carl Wagner; jewellery by Rudolphi - 111

English jewellery and enamels; in the Saxon, Norman, and subsequent eras; great seals, monumental effigies, shrines, rings, and designs by Holbein - 66

Remains found in barrows; torques, fibulae, and enamels; Irish, Anglo-Saxon, and mediæval specimens - 82

Jewellery in the mediæval style, by Hardman - 82

Jewellery of India, lapidaries' wheel; processes, &c., of native gold and silversmiths - 40

Silversmiths' work by Marrel, Paris - 153

Damascening:—History and processes - 151

Enamels:—History of the art; filagree or cloisonné enamel of Byzantium; the Alfred jewel; the palliotto of St. Mark's, Venice; collections of MM. Lenoir and Sommerard; revival of the art at Sèvres; processes employed - 51

Painted and translucent enamels by Morel, for Webb of London - 107

Champlevé enamels of Limoges; influence of Byzantine art - 107

Late Limoges; translucent on relief, in Italy, France, and England - 145

Specimens by Morel and Froment-Meurice - 137, 145

Chinese enamels; introduction and practice of the art in China - 152

Enamels on ancient arms and armour - 101

Specimens from Indian arms - 124, 135

Indian processes - 152

Description of the French school; "grisaille," and modern specimens; vase by Hunt and Roskell - 156

METAL-WORK (cont.):—

Electrotype:—Origin and progress of the art; its principles; rival claims to the discovery; its application by Messrs. Elkington; group of objects by them - 79

Processes; copy of a shield by Vechte - 138

Iron:—

Its early use in England - 19

Ancient iron-works in Sussex - 99

Fountain and gates by the Coalbrook Dale Company; history of the Company; sand-casting - 19

Iron-casting in France; fountain by André; works of Calla; principles applicable to works in iron - 39

Andirons and fire-backs - 121

Steel:—

Spanish, its excellence in the middle ages - 3

Moorish, Spanish, and other fire-arms - 3, 8

Hunting-knife, by Zuloaga of Madrid - 3

Historical notices of arms and armour; Negroli of Milan, Andrea di Ferrara, Cellini, Albert Durer, &c.; daggers and sheaths, by Wostenholm and Son of Sheffield - 101

Sheffield, general history of the town and its trade - 99

Steel and cutlery manufactures of Sheffield described; converting works; "shear steel;" tilt works; "cast steel;" rolling mills; grinding wheels; grinders' asthma - 122

"Home stove" and fender, by Stuart and Smith - 121, 122

Sheffield east steel compared with that of India - 124

Plated goods of Sheffield, history and processes; "solid silver edges;" Britannia metal described - 129

Indian steel or wootz; antiquity, perfection, and process of manufacture - 124

Brass, &c.:—

Birmingham manufactures - 134

Shield and pistols, by Lepage-Moutier of Paris - 105

"Brass toy trade;" Mr. Winfield's works; bedstead by him; application of forms to materials; processes of moulding, casting, chasing, finishing, lacquering, &c. - 43, 98

Panel, cast by Bailey and Co.; history of the use of mixed metals in England - 94

Buhl panel by Fourdinois of Paris; process of inlaying described - 126

Mezzo-relievo (see Sculpture).

Milanese sculpture in the Great Exhibition; works of Magni, Fraaccaroli, Strazza, Motelli, and Monti - 37

Milanese arms and armour - 3, 117

Milton, Shakspeare, and Newton; shield by Vechte - 117

Mind, of Switzerland, his carvings - 7

Minton and Co.:—Their productions; origin and progress of their establishment; Majolica vases, &c. - 11, 97

Vase and dish in parian - 58

Della Robbia friezes - 67

Dessert service, presented by the Queen to the Emperor of Austria - 89

Terra-cotta figure of Galatea - 97

Encaustic tiles - 128

Misericorde (see Arms and Armour).

Mohair; raw material and manufacture described; spinning, knitting, weaving, dyeing, and printing; exportation; varieties of goods; "Portières," by Lees and Co. - 64

Monograms on Sèvres porcelain - 14

Moorish Art:—

Architecture described by Swinburne, Murphy, De la Borde and Owen Jones; his work on the "Alhambra;" remarks of Hope and de Prangey - 136

Perforated stone domes and windows; specimens from Tunis; preservation of ancient patterns - 15

Perforated gun stand - 34

Mahommedan architecture of India - 88

Steel of Damascus and Mossoul - 3

Fire-arms - 8

Embroidery, its presumed origin in Persia - 4

The art practised in India only by Mahommedans; principles regulating their employment of colour - 56

Mohammedan and modern Indian illuminated MSS.; their resemblance to Byzantine types - 68

Harmonious union of gold and colour - 72

Use of glazed tiles by the Moors in Spain - 106

Moorsheadabad, presents to Her Majesty from - 16

Its trade in silk - 16

Motel, notice of his career, enamelled vase and dish, and other objects, executed by him - 107, 145

Mortlake tapestry works - 42, 108

Mosaics:— Byzantine - 72

Florentine; history of the art; imitations by Woodruff of Bakewell - 103

Mulhausen, cotton printing at - 26

Müller, on conventionality in art - 112

Munich (see Bavaria).

Murano, glass works at (see Venice).

Musical instruments (see Pianofortes).

Muslins (see Cotton, France, and India).

Myers, G., altar and reareds by him - 142

Naylor, W., objects in glass by - 110

Needlework (see Embroidery).

Negroli of Milan, a famous armourer - 101

Nephrite, or jade-stone (see Jade-stone).

Nollekens, peculiarities of his style of sculpture - 53

Nottingham lace, adulterated by the manufacturers; "run-lace;" trade and processes described - 30

Invention of the bobbin-net machine; successive improvements; statistics of the trade and manufacture - 102

Nuremberg, sculpture of the fourteenth and sixteenth centuries in - 49

INDEX.

Orfres (see Embroidery).
 Osler, F. & C., their glass works; Crystal Fountain - 23
 Painted cloths used before paper-hangings, mottoes upon them - 71
 Paisley, history of its trade; the shawl manufacture; shawl borders by J. and A. Roxburgh - 26, 92
 Palissy, Bernard de, his experiments and discoveries
 Stained glass at Ecouen, executed by him from the designs of Raphael - 114
 Palissy ware revived in France - 6
 Palliotto, or altar frontal of St. Mark's, Venice; a specimen of cloisonné enamel - 51
 Paper made from waste cotton - 116
 Paper trade of Ahmedabad - 24
 Paperhanging:—Textile fabrics formerly used as hangings for walls; plain; embroidered; woven in patterns; Flemish tapestry, or arras; old English specimens; manufacture at Mortlake; gobelin tapestry - 42, 90
 Old painted cloths, embossed leather, &c. - 71
 Flock-papers; block-printing; works of Jackson, Echarts, Sherringham, Harwood, Clarke, Clarke and Henderson, &c. - 95
 Specimens by Hinckley, Woollans and Co., and Townsend and Parker - 42, 71, 95
 History of, in France; competition with England; specimens by Mader, Frères, of Paris - 100
 Papier-mâché, its introduction; supersedes hand-work stucco in decoration; works of Jackson, Bielefeld, Jennens and Bettridge, &c. - 65, 134
 Paris (see France).
 Parian (see Earthenware).
 Parquetry, or inlaid flooring - 75
 Patens (see Chalcies and Patens).
 Paton, Waller, damask table-cover designed by him - 70
 Pavement in encaustic tiles by Minton; mediæval tiles - 128
 Payne, Roger, his skill and taste in bookbinding - 96
 Pellatt, Apsley, objects in glass by him; his "Curiosities of Glass-making" - 18, 110
 His remarks on the influence of oxygen upon the colour of flint-glass - 23
 Peg tankard at Wardour Castle - 81
 Pereier, style of his works in bronze - 13
 Perkins, his principle of multiplying steel plates; its application to cotton-printing - 120
 Perrot, M., inventor of the perrotine for cotton-printing - 26, 120
 Persia, its ancient commerce with India - 104, 140
 Splendour of its illuminated MSS. - 68
 Use of perforated stone-windows - 15
 Persian carpets (see Carpets).
 Perugia, façade of San Bernardino, by Agostino della Robbia - 67
 Phidias, his colossal statues in ivory - 21
 Philostratus, his allusion to the art of enamel - 51
 Phœnicia, its ancient commerce with India - 104, 140
 Pianofortes: history of stringed instruments; the virginal, dulcimer, harpsichord, piano-forte, &c. - 59
 Extent of Messrs. Broadwood's manufacture; improvements made by them; Erard's "repetition action" - 83
 Pianos by Collard and Collard - 59
 Ornaments from a piano by Broadwoods' - 83
 Pilaster in carton-pierre, by Cruchet of Paris - 65
 Pillow Lace described - 154
 Pisa, Nicola and Giovanni di, influence of their works on art in Italy - 50
 Enamels by the latter - 145
 Pistols (see Arms).
 Pitts, his design for the buckler of Eneas - 117
 Plated goods (see Sheffield).
 Plush (see Mohair).
 Pole, Mr., his notes on the Musical instruments in the Great Exhibition - 59
 Pollaiuolo, his productions in enamel - 145
 Point-lace (see Lace).
 Porcelain, history of, in England - 89, 147
 Works at Fulham, Chelsea, Bow, Derby, Worcester, &c.; mania for Oriental porcelain in the reign of Anne - 97
 Recent improvements in the art - 115
 Dessert service by Minton, presented by the Queen to the Emperor of Austria - 89, 147
 History of the art in France; Old Sèvres, or pâte-tendre; vase, "La Gloire" - 14
 Hard porcelain, or pâte-dure; improvements of Böttcher - 31
 Pendant lamp from Sèvres; materials and processes described - 115
 China-clay discovered by Schnorr; Meissen works; Vienna imperial manufactory - 31
 Vase in white china, by Jouhanneau and Dubois of Paris - 78
 General history of pottery and porcelain in France
 Stove, by Hoffman of Berlin - 55
 Portières in printed mohair, by Lees and Co. - 64
 Potteries, the (see Earthenware).
 Potteries of the Roman era in England - 81
 "Potters' marks," or makers' names, on Roman pottery - 81
 Pradier, his works in marble - 93
 Prignot, Eugène, carpets and sideboard designed by him for Jackson and Graham - 132, 143
 Primaticcio, his designs for carvings at Fontainebleau - 69
 Prince of Wales's shield, designed by Cornelius, described - 35
 PRINCIPLES OF ART:
 Sculpture:—Difficulty attending colossal works; Marochetti's Cœur de Liou - 33
 Adaptation of subjects to dimensions; minutiae of detail to size and material - 73
 Study involved in simple composition; Drake's "Pleasures of Public Gardens" - 49
 Importance of originality in art; evils of a too constant reproduction of the antique - 79
 Style of composition suited to different degrees of relief - 133

PRINCIPLES OF ART (cont.):—
 Surface decoration:—Application of ornament to spaces, flatness, ground, and pattern; outline and colour; conventional forms illustrated by Indian lac-work - 4, 12, 32, 112
 Harmony of colour, its application to advancing and receding surfaces illustrated in Indian works - 36, 152
 Mr. French's pamphlet "On the Arrangement of Colours in Ancient Decorative Art" - 47
 Combination of gold and colours, especially in Indian kincobs; remarks by Owen Jones - 72
 Owen Jones on the employment of colour by the ancients and the Moors, as illustrated by Indian embroidery - 56
 Metal-work:—Silver vase, by Hunt and Roskell - 27
 Wagner's reasons for oxydising works in silver - 35
 Redgrave on ornamentation, repoussé, and chasing; adaptation of design to material - 111
 Forms and ornaments adapted for cast-iron - 39, 43
 Ceramic art, its forms and decoration - 14, 58
 Objects in glass - 18
 Textile fabrics:—Lace and embroidery - 30
 Patterns of chintz draperies - 116
 Printing of cotton, woollen, and mohair goods, its introduction and extensive application - 64, 116
 Various processes described - 120
 Printed muslins, by Deponilly of Paris - 26
 Printed paper-hangings (see Paper-hangings).
 Printed patterns on lace for embroidering - 30
 Printed table-covers by Wood and Co. - 91
 by Evans and Co. - 120
 Prussia:—
 Monument of Frederick William III., reliefs from its pedestal, by Drake of Berlin; subject, "The Pleasures of Public Gardens" - 49
 Bronze casting in - 1
 Shield by Cornelius, presented to the Prince of Wales; memoir of the artist - 73
 Prussian artists in metal, jewellery and enamels - 35
 Centre piece in silver, by Wagner; works of the Messrs. Wagner - 35
 Modern use of terra-cotta; revived manufacture promoted by Schinkel; fountain by March of Charlottenberg - 45
 Ordinary form and action of German stoves; improvement in tiles; stove in white porcelain, by Hoffman - 55
 Old German glass in the Royal Collection of Arts - 38
 Pugin, the late A. W., memoir of; his remarks on ancient carved roofs and screens; his designs; jewellery; cabinet; mediæval stove and carpet; altar and reredos - 62, 82, 90, 106, 108, 142
 Raphael, his designs for the stalls at Perugia; for stained glass at Ecouen - 50, 114
 Rauch of Berlin, memoir and notice of his works; his statue of "Victory" - 1, 5, 25
 Redgrave, R., R.A., his remarks on ornamentation in the precious metals - 111
 Relics of saints inclosed in monastic book covers - 109
 Relievo (see Sculpture).
 Renaissance art:—sculpture in Germany - 49
 Decoration in France - 83
 Decoration in England - 141
 Wood-carving in France - 69
 Stained glass windows - 86, 114
 Shields and bucklers, imitated by Vechte - 117
 Ribbon trade and manufacture of Coventry. Its history and present state; "the Coventry Ribbon" - 60
 Of France, history of; specimen from St. Etienne - 60
 Of Ahmedabad - 24
 "Richard Cœur de Lion," a statue by Marochetti - 33
 Riechborough, remains of Roman pottery - 81
 Reitschel of Dresden, biographical notice of; the "Christ Child," and "Cupid and Panther," bassi-relievi by him - 5, 92
 Rioereux, M., his history of Sèvres porcelain - 115
 Ringuet le Prince, Paris, his establishment and works - 155
 Roberts, Mr., Sheffield, his invention of "solid silver edges" and other improvements - 99, 129
 Rogers, W. G., his wood-carvings; boxwood cradle for Her Majesty, designed by W. H. Rogers - 130
 Rome, ancient use of silken robes and cloth of gold - 22, 72
 Roman art, sculpture in ivory - 21
 Roman pottery in Britain - 81
 Roman jewellery in Britain - 82
 Roofs (see Wood-carving).
 Rouen (see France).
 Roxburgh, J. and A., Paisley shawl borders by - 92
 Royle, Dr., his writings; on the antiquity of Indian art and commerce - 72, 104
 On Indian steel and enamels - 124, 152
 Rudolphi, M., of Paris, his works in the precious metals; specimens of jewellery by him - 111
 Run-lace (see Lace).
 Rushes employed to cover floors; ceremony of "rush-bearing" - 108
 Russian embroidery, processes; its resemblance to that of Byzantium - 20
 Russian paper-hangings - 100
 Saddle-cover, Indian - 104
 St. Cloud, manufactory of porcelain at - 14
 St. Eloi, his works in the precious metals; monastery for artist-monks established by him - 113
 St. Etienne, specimen of ribbons from - 60
 St. Pancras Church, its ornamental details in terra-cotta - 74
 St. Paul's Cathedral: cast-iron railing - 99
 Gibbons' carvings - 130
 St. Yreix, china-clay discovered there - 31
 Salt-cellars, by Elkington and Mason - 79
 By Froment-Merice - 93
 Salvors, with designs originally intended for shields - 117

Samian ware described; specimens found at Riechborough, &c. - 81
 Sansovino, influence of his works on Italian art - 50
 Saracenic art (see Moorish Art).
 Saxony: porcelain works at Dresden and Meissen; Böttcher's improvements - 14
 China clay discovered by Schnorr - 31
 Shadow of Berlin, sculptor, his works - 1
 Schafer, Johann, of Nuremberg, his paintings on German glass vessels - 38
 Schinkel, of Berlin, his works - 5
 His employment of terra-cotta architecturally - 45
 Advocates the use of zinc as a substitute for bronze - 1
 Schnorr, Jean, his discovery of china clay and manufacture of porcelain at Dresden - 14
 Schonhofer, Sebald, his works in sculpture at Nuremberg - 49
 Schools of Design:—
 London; Table-covers, designed by Miss A. Cary, a pupil - 91
 The Potteries; its effect; works of the artists 11, 89, 97
 Birmingham; Designs by a pupil, for Elkington and Mason - 79
 Coventry; Its success - 60
 Nottingham; Its beneficial effects - 102
 Paisley; Designs for shawl patterns - 92
 Drawing Academy at Dmfermline - 70
 Schools founded by André at his iron-works in France - 39
 At Athens - 76
 Schwanthaler, his design for a shield of Hercules - 117
 Seinde (see India).
 Screens, Stalls, &c. (see Wood-carving).
 Sculpture:—
 Dr. Kugler on contending influences: the antique, the natural, and the romantic - 25
 Scales adapted to different styles, imitation of details - 37
 Varieties of relief and style of composition suited to each; alto-relievo, mezzo-relievo, basso-relievo, bassissimo-relievo; remarks of Sir C. Eastlake - 133
 Of Ancient Greece, chryselephantine art - 21
 Its history in Italy, to the cinque-cento period - 50
 English school, its characteristics, sketch of its history; works of Gibbons, Cibber, Roubiliac, Wilton, Banks, Nolckens, Bacon, Mrs. Damer - 53
 "The Hunter," by Gibson of Rome; adaptation of actual incidents; life and works of Gibson - 17
 "The Hours leading forth the Horses of the Sun," by Gibson - 133
 "A Youth at a Stream," by Foley - 77
 "Andromeda," and other works, by Bell - 53
 "Richard Cœur de Lion," and other works, by Marochetti; difficulty attending colossal designs - 33
 Memoir of Mr. John Thomas; his works at the Houses of Parliament, &c. - 63
 "The First Cradle," by De Bay; memoir of the artist - 61
 "The First Step," by Magni - 37
 Works of Milanese artists in Great Exhibition - 37
 "The Amazon," by Kiss - 1
 "Victory," by Rauch - 25
 Sketch of the history of sculpture in Germany; its recent progress - 49
 "The Pleasures of Public Gardens," basso-relievos by Drake - 49
 Study necessary for apparently simple groups
 "The Christ-Child," and "Cupid and Panther," bas-reliefs by Rietschel - 5, 29
 "The Hunter and Panther," by Jerichau; memoir of the artist - 57
 Seasoning of wood for furniture, Mr. Snell's plan - 125
 Sèvres porcelain; history of the manufacture; old Sèvres; colours used; ornament; artists employed; monograms, &c. - 14
 Guettard's discovery of kaolin; a superior kind found at St. Yreix; its adoption by Macquer for hard porcelain - 31
 Materials and processes described - 115
 Sèvres museum; English specimens exhibited there - 115
 Sèvres enamels (see Metal-work).
 Semper, Gottfried; his theatre at Dresden - 5
 Shakspeare, Milton, and Newton shield, by Vechte - 117
 Shawls (see Cashmere and Paisley Shawls).
 Shear Steel (see Metal-work: Steel).
 Sheffield; general history of the town and its trade
 Daggers and sheaths, by Wostenholm and Son - 101
 "Home-stove" and fender, by Stuart and Smith - 121, 122
 Steel manufacture described; converting-works, tilt-works, casting-furnaces, rolling-mills, cutlery, grinding-wheels, grinders' asthma - 122
 History and processes of the manufacture of plated goods and Britannia metal - 129
 Sherringham, Mr., his improvements in paper-hangings - 71, 95
 Shields, ancient; their decorations; mediæval and renaissance shields; modern imitations; Flaxman, Schwanthaler, Vechte - 117
 Shield presented to the Prince of Wales by the King of Prussia - 73
 Shield in iron, by Lepage-Montier, of Paris - 105
 Shield of the Amazons, executed by Carl Wagner for the King of Prussia - 111
 Shields in silver, by Vechte - 117, 138
 (and see Arms.)
 Shrines, ancient specimens in France - 113
 Sicily; silk-weaving in the twelfth century; robes of the Sicilian kings - 22, 123
 Siena cathedral, Florentine mosaic pavement - 103
 Silbermann, of Freyburg, his "forte-pianos" - 59
 Silicia, glass-works in - 38
 Silk-manufacture; its progress from Byzantium to Sicily, Italy, Spain, Flanders, England, and France; improvements of Sir T. Lombe; introduction of Jacquard loom - 22

INDEX.

- Silk-manufacture (*cont.*):—
 Conversion into yarn; plain and figure weaving; loom described - 87
 Weaving established in Sicily in the twelfth century - 123
 Brocades of Spitalfields manufacture - 22, 87
 Fluctuations and present state of the trade of Lyons; memoir of Jacquard; history of his inventions; effects of the Jacquard loom - 119
 Specimen by Mathevon and Buvard - 119
 Manufactory at Athens - 76
 Trade of India - 16, 24
 Carpets from India - 132
 (see also Ribbon-trade, Coventry, and St. Etienne.)
 Silver (see Metal-work).
 Skidmore of Coventry, his specimens of church-plate - 41
 Slate, enamelled, by Magnus - 103
 Sleigh, Mr., his works in lithography, his decoration of a box of water-colours - 131
 Snell, Mr., his establishment, his process of seasoning wood; furniture designed by Marochetti, &c. - 125, 150
 Society of Arts, its exhibitions the precursors of the Great Exhibition of 1851 - 46, 71, 89
 Lectures on the results of the Exhibition, 72, 116, 124
 Solier, M., his Sèvres enamels - 93
 Solignac, near Limoges, monastery for artist-monks, especially goldsmiths, established by St. Eloi - 113
 Sommerard, M., his collection of enamels at the Hôtel Clugny, Paris - 51
 Spain:—
 Hunting-knife and sheath, by Zuloaga, of Madrid - 3
 Fire-arms of Moors and Spaniards - 8
 Arms and other relics of the Armada - 8
 Silk manufacture - 22
 Point-lace - 146
 Glazed tiles at the Alhambra - 106
 Decoration of the Queen's cabinet at Aranjuez - 136
 Spence, Thomas, his invention of the electrotype process - 79
 Spinning machines; inventions of Wyatt, Paul, Arkwright, Hargreaves, Crompton, &c. - 116
 (see also Cotton, India, Linen, Mohair, Silk, &c.)
 Spitalfields silks, history of the manufacture, and specimens - 22
 Spode, Messrs. their improvements in porcelain - 147
 Sprenont, director of the Chelsea porcelain works - 97
 Staffordshire, the Potteries (see Earthenware and Porcelain).
 Stained glass (see Glass).
 Steel (see Metal-work: *Steel*).
 Stevens, Alfred, his designs for stoves, by Hoole, Robson, and Hoole, of Sheffield - 99, 129
 For daggers for Wostenholm and Son, Sheffield - 101
 Stoddart, his improvements in pianofortes - 59
 Stourbridge, glass manufacture at - 18
 Stourbridge clay crucibles; their use in casting glass - 43
 Stone carving in Holland and Belgium - 9
 Stoves and grates; early history of in England; chimneys and andirons, modern improvements
 Hot-air and other stoves, by Hoole, Robson, and Hoole, Sheffield - 99, 129
 Medieval stove, designed by Pugin - 106
 German, their form and materials, improvements in construction and decoration - 55
 Ancient German specimens, made of glazed tiles; use of tiles by the Moors - 106
 Stratford-le-Bow, Elizabethan ware probably made there - 89
 Stuart and Smith, "Home Stove" and fender by, 121, 122
 Stucco decorations in the seventeenth and eighteenth centuries - 65
 Suger, Abbot of St. Denis, his works in the precious metals - 113
 Windows of his abbey church - 114
 Surface decoration (see Principles of Art).
 Sussex, ancient iron works in - 99
 Swiss Embroidery - 144
 Switzerland, escrutoire by Wettli of Berne; trade in fancy carving; works of Mind; Vogel and Kessler - 7
 Swords (see Arms).
 Tables (see Furniture).
 Table-covers, printed, by Wood and Co. - 91
 By Evans and Co. - 120
 Tapestry, for mural decoration; of Flemish origin; old English specimens; subjects and prices; cloths of gold and silver; "baudekin;" tapestries of Wolsey and Charles I.; English manufactories at Mortlake, &c., Gobelins tapestry - 42, 150
 Tapestry used for covering floors - 108
 (and see Furniture.)
 Tavernier, his account of Dacca muslins - 157
 Taylor, James, his "Account of the Cotton Manufacture of Dacca" - 48, 56, 157
 Terra-cotta:—Works of Luca and Agostino della Robbia - 11, 67
 Its extensive use in Berlin; in ancient Greece, in Etruria, and in the middle ages; in Germany revived manufacture promoted by Schinkel; fountain by March, of Charlottenberg - 45
 Used for stoves in Germany - 55
 History of its use in England - 74
 Vase designed by J. Thomas for E. L. Betts - 74
 Figure of Galatea by Minton - 97
 Textile fabrics (see Cotton, Silk, Embroidery, India, &c.)
 Theophilus, his account of ancient chalices, &c. - 41, 113
 Of ancient wall-paintings - 71
 Of stained-glass windows in France - 114
 Of the use of false gems in Byzantium - 123
 Theory of art (see Principles of Art).
 Thomas, John, memoir and notice of his works - 63
 Side of a room, and vase in terra-cotta designed by him - 63, 74
 Decoration of a pianoforte carved by him - 83
 Thomire, M., French bronzes produced at his establishment - 13
 Thorwaldsen, his association with Gibson, Rauch, and Jerichau - 17, 25, 57
 Tiles, glazed, used for German stoves; their use in Germany and by the Moors in Spain; applied to stoves, &c. by Minton - 55, 106
 Encaustic pavement by Minton; history of their use and manufacture in England - 128
 Timber roofs (see Wood-carving).
 Toledo blades - 3
 Townsend and Parker, paper-hanging by - 95
 Treadwin, Mrs., her account of the lace trade of Honiton - 154
 Trentanove of Rome, candelabrum by - 50
 Triptychs, carved, in French churches - 69
 Triqueti, M. de, his works in bronze and other metals - 93
 Trollope, Messrs., their specimens of marquetry furniture, materials, mode of execution - 75
 Tschudi, the predecessor of Broadwood and Sons; his harpsichords - 59
 Tunis, objects from:—Embroidery - 4
 Window ornament - 14
 Ornamental gun-stand - 34
 Turin, Marochetti's statue of Emanuel Philibert - 33
 Turkey, its productions:—Embroidery, silk and cotton goods - 10
 Angora wool; manufacture of mohair - 64
 Carpets (see Carpets).
 Turpin, Jean, his carved stalls at Amiens - 69
 Urbino, Duchy of, seat of the Majolica manufacture - 11
 Vandenbrand, marquetry executed by him for Messrs. Trollope - 75
 Vanner and Son, Spitalfields; silks woven by them - 22
 Vechte, Antoine, memoir and notice of his works, his imitations of Renaissance shields; his pupils; shields and vase executed by him for Hunt and Roskell; shield for Lepage Moutier; shield, "The Battle of the Amazons" copied in electrotype 27, 93, 105, 111, 117, 138
 Veit-Stoss, his wood and stone carvings at Nuremberg, &c. - 9, 49
 Venice:—Its commerce with India - 149
 Influence of Byzantine art on its productions - 107
 Its trade in the rich garments of Constantinople - 123
 Glass, history and processes of the manufacture - 110
 Its early importation into England - 18
 Imitations in Germany - 38
 Point-lace - 146
 Paliotto or altar frontal of St. Mark's - 51
 Vienna, the imperial porcelain manufactory - 31
 "Victory," a statue by Rauch, of Berlin - 25
 Vittoz, of Paris, bronze group by - 13
 Vischer, Peter, and his sons; their carvings in stone - 9, 49
 Vogel, of Switzerland, his carvings - 7
 Voisinlieu, "Beauvais ware" produced there - 6
 Wagner and Son, jewellers and silversmiths to the King of Prussia; notice of their works - 35
 Wagner, Albert, of Berlin; his centrepiece in silver described; reasons for oxidising the metal - 35, 111
 Wagner, Carl, his works in the precious metals; his sudden death - 111
 Wailes, stained glass by - 86
 Wales, Prince of, shield presented to him by the King of Prussia - 73
 Wallis of Louth, wood-carving by - 62
 Water-colours anciently applied to linen cloths for mural decorations - 71
 Water-colours; those of the late Rudolph Aekermann and his successors; their ingredients; new specimens in the Great Exhibition - 131
 Watherston and Brogden, gold vase, jewelled and enamelled; other productions of the firm; Mr. Watherston's publications on the value of gold and silver - 66
 Watson, Bell, and Co., their importation of Indian and manufacture of Axminster carpets - 148
 Weaving:—Of Spitalfields silk, its history - 22
 Indian loom described - 24
 Origin and improvements in the ribbon loom - 60
 Cotton weaving - 116
 Mohair, process described - 64
 Linen; damask table-covers - 70
 Carpets - 132, 148
 Lace - 102, 154
 Paisley shawls - 92
 Wedgwood, Josiah, notice of his works - 147
 Wellington statue by Marochetti at Glasgow - 33
 West, Benjamin, models by him in terra-cotta - 74
 Wettli of Berne, escrutoire in white wood - 7
 Whytock's patent tapestry - 148
 Wilton, sculptor, character of his works - 53
 Wilton, carpet manufacture at - 108, 132
 Process of weaving - 148
 Window ornament from Tunis; windows of perforated stone in ancient edifices - 15, 34
 Windows:—Of Chinese dwellings - 54
 History of stained glass in England - 86
 In France - 114
 Winfield, of Birmingham, his establishment and productions; processes employed in the brass trade - 43, 134
 Winston, Mr., his remarks on ancient and modern stained glass - 86
 Wohlgemuth, his carvings at Zurickau and Nuremberg - 9, 49
 Wolsey, Cardinal, his valuable tapestries and other hangings - 42
 Wood-carving:—Its early history in England; timber-framed roofs, screens, stalls, doors, benches, &c. - 62
 Group of flowers and birds by Wallis of Louth - 62
 In old English domestic buildings; memoir and works of Grinling Gibbons, Selden and Watson, his assistants; Mowatt, Chippendale, Wilton, &c. - 130
 Boxwood cradle carved by Rogers for her Majesty - 130
 In France, its history - 69
 Niehe by Knechts of Paris - 69
 In Germany, works of Kraft, Wohlgemuth, Vischer, Veit-Stoss, Albert Durer - 9
 Escrutoire by Wettli of Berne; Swiss carvings generally - 7
 Lattice-work in Moorish art; perforated gun-stand from Tunis - 34
 (see also Furniture.)
 Woodruff, of Bakewell, his imitations of Florentine mosaic - 103
 Woollams and Co. specimen of paper-hanging - 71
 Woollen manufactures:—History and processes - 91
 Colour-printing, dyes, mordants, dischargers, and resists - 91
 Printing process described - 120
 Indian woollen goods - 12
 Wootz, or Indian steel; its excellence; history and process of the manufacture - 124
 Worcester porcelain works - 97
 Worsted manufactures (see Paisley Shawls).
 Wostenholm and Son, of Sheffield, daggers and sheaths by - 101
 Wyatt, J. R. his "Shepherd Boy," produced in statuary porcelain by Copeland - 58
 "Youth at a Stream," statue by Foley, cast in bronze by Hatfield - 77
 Zeigler, his invention of Beauvais ware - 6
 Zinc, group of "the Amazon" by Kiss - 1
 Zuber, Jean, of Rixheim, on French paper-hangings, productions of his establishment - 100
 Zuloaga of Madrid, hunting-knife by him - 3

CLASSIFIED LIST OF SUBJECTS.

SECTION I.—SCULPTURE.

| No. OF PLATE. | | By | No. OF PLATE. | | By |
|------------------|--|--|------------------|---|-----------------------|
| 17 | The Hunter | GIBSON, R.A. | 1 | The Amazon | KISS, Berlin. |
| 133 | The Hours leading forth the Horses of the Sun | GIBSON, R.A. | 5 | The Christ Child ("Christ Engel") | RIETSCHEL, Dresden. |
| 53 | Andromeda | JOHN BELL. <small>Cast in bronze by the COALBROOKDALE CO.</small> | 29 | Cupid and Panther | RIETSCHEL, Dresden. |
| 77 | A Youth at a Stream | FOLEY, A.R.A. <small>Cast in bronze by HATFIELD.</small> | 49 | The Pleasures of Public Gardens | DRAKE, Berlin. |
| 33 | Richard Cœur de Lion | The Baron MAROCHETTI. | 37 | The First Step | MAGNI, Milan. |
| 25 | Victory | RAUCH, Berlin. | 61 | The First Cradle | DE BAY, Paris. |
| | | | 13 | A Group in Bronze | VITTOZ, Paris. |
| | | | 57 | The Hunter fighting with the Panther | JERICHAU, Copenhagen. |

SECTION II.—METAL-WORK.

English Gold and Silver Plate and Jewellery.

| | | |
|-----|--|---|
| 27 | Vase in Silver | HUNT and ROSKELL, London. |
| 41 | Group of Church Plate | SKIDMORE, Coventry. |
| 46 | Group of Plate | GARRARD, London. |
| 66 | Gold Vase, enriched with Jewels and Enamels | WATHERSTON & BROGDEN, London. |
| 82 | Jewellery, in the Mediæval Style | HARDMAN, Birmingham. <small>Designed by PUGIN.</small> |
| 98 | Silversmiths' Work | GOUGH, Birmingham. |
| 117 | Portion of a Shield in Silver | VECHTE; for HUNT & ROSKELL, Lond. |

Electrotype.

| | | |
|-----|-----------------------------------|--------------------------------|
| 79 | Table and other objects | ELKINGTON & MASON, Birmingham. |
| 138 | Shield | ELKINGTON & MASON, Birmingham. |

Foreign Plate.

| | | |
|-----|---|--------------------------------|
| 35 | Centre-piece in Silver | WAGNER, Berlin. |
| 73 | Portion of a Silver Shield. Presented by his Majesty the King of Prussia to H.R.H. the Prince of Wales, on the occasion of his Baptism | Designed by CORNELIUS, Berlin. |
| 93 | Statuette in Ivory and Objects in Gold and Silver | FROMENT-MEURICE, Paris. |
| 111 | Jewellery | RUDOLPHI, Paris. |
| 113 | Chocolate Cup in Silver | LEBRUN, Paris. |
| 137 | Group of Silversmiths' Work | FROMENT-MEURICE, Paris. |
| 153 | Specimens of Silversmiths' Work | MARREL, Frères, Paris. |

Enamels.

| | | |
|-----|--------------------------|------------------------------|
| 51 | Group from the | ROYAL MANUFACTORY AT SÈVRES. |
| 107 | Vase and Dish | MOREL; for WEBB, London. |

| | | |
|-----|----------------------------|---------------------------|
| 127 | Group of Chinese Enamels. | |
| 145 | Group of Objects | MOREL, London. |
| 156 | Vase | HUNT and ROSKELL, London. |

Damascening.

| | | |
|-----|---|------------------|
| 3 | Dagger and Sheath | ZULOAGA, Madrid. |
| 8 | Pistols (engraved and inlaid) | ZULOAGA, Madrid. |
| 151 | Group of Objects | FALLOISE, Liège. |

Iron and Steel.

| | | |
|-----|--|--|
| 19 | Fountain and Ornamental Gates | COALBROOKDALE COMPANY. |
| 99 | Stove | HOOLE, ROBSON, & HOOLE, Sheffield. <small>Designed by A. STEVENS.</small> |
| 101 | Daggers and Sheaths | WOSTENHOLM & SON, Sheffield. <small>Designed by A. STEVENS.</small> |
| 106 | Stove, in the Mediæval Style | HARDMAN, Birmingham. <small>Designed by PUGIN.</small> |
| 121 | Home Stove and Fender | STUART and SMITH, Sheffield. |
| 122 | Details of Home Stove and Fender | STUART and SMITH, Sheffield. |
| 129 | Portions of Stoves | HOOLE, ROBSON, & HOOLE, Sheffield. <small>Designed by A. STEVENS.</small> |
| 39 | Fountain in Iron | ANDRÉ, Paris. |
| 105 | Shield in Iron | LEPAGE MOUTIER, Paris. <small>Designed by VECHTE.</small> |

Brass, &c.

| | | |
|-----|---|------------------------|
| 43 | Bedstead | WINFIELD, Birmingham. |
| 94 | Open-work Panel | BAILEY and Co. London. |
| 134 | Standard Lamp | WINFIELD, Birmingham. |
| 139 | Pendant Lamp | MATIFAT, Paris. |
| 85 | Group of Chinese Bronzes, inlaid with silver wire. | |

SECTION III.—TEXTILE FABRICS, LACE, AND EMBROIDERY.

| | | | | | |
|-----|--|---|-----|-------------------------------------|--|
| 22 | Silk Brocades | CAMPBELL, HARRISON, and LLOYD, and VANNER and Son, Spitalfields. <small>(For HOWELL, JAMES, and Co., London.)</small> | 132 | Axminster Carpet | JACKSON and GRAHAM, London. |
| 60 | "The Coventry Ribbon," and Speci- mens of Ribbons from St. Etienne. | | 148 | Axminster Carpet | WATSON, BELL, and Co. London. |
| 87 | Figured Silk | CAMPBELL, HARRISON, and LLOYD, Spitalfields. <small>(For LEWIS and ALLENBY, London.)</small> | 30 | Black Lace Flounce | GREASELY & HOPCROFT, Nottingham. |
| 119 | Figured Silk | MATHEYON and BUVARD, Lyons. | 102 | Machine-made Lace | HEYMAN & ALEXANDER, and BIRKIN, Nottingham. |
| 92 | Portions of Shawls | ROXBURGH and Co. Paisley. | 146 | Specimen of Lace | Miss Jane CLARKE, London. |
| 70 | Damask Table-covers | BEVERIDGE, Dunfermline. | 154 | Specimens of Honiton Lace | Mrs. TREADWIN, Exeter. |
| 91 | Printed Table-covers | H. and T. WOOD, London. <small>From Designs by Miss A. CARLY.</small> | 47 | Embroidered Book-cover | FRENCH, Bolton, Lancashire. |
| 120 | Block-printed Table-cover | EVANS and Co. London. | 4 | Embroidery in Bullion, from Tunis. | |
| 64 | Portières of printed Mohair | LEES and Co. London. | 10 | Specimens of Turkish Embroidery. | |
| 116 | Chintz Pattern | JAPUIS and SON, Paris. | 20 | Specimens of Russian Embroidery. | |
| 26 | Printed Muslins | DEPOUILLY and Co. Paris. | 76 | Greek Embroidery. | |
| 108 | Carpet, in the Mediæval Style | CRACE, London. <small>Designed by PUGIN.</small> | 80 | Albanian Costume Embroidery. | |
| | | | 123 | Embroidered Bags from Greece. | |
| | | | 144 | Specimens of Swiss Embroidery. | |

SECTION IV.—PORCELAIN, GLASS, AND EARTHENWARE.

| No. OF PLATE. | | By | No. OF PLATE. | | By |
|------------------|---|--|------------------|---------------------------------|---|
| 11 | Group of Vases, &c. | MINTON, Stoke-upon-Trent. | 115 | Pendant Lamp in Porcelain | THE ROYAL MANUFACTORY, SÈVRES. |
| 147 | Group of Objects in Porcelain | COPELAND, London and Stoke-upon-Trent. | 6 | Group of Vases in Beauvais ware | MANSARD, Voisinlieu, near Paris. |
| 58 | Renaissance Vase and Dish in Parian | MINTON, Stoke-upon-Trent. | 45 | Fountain in Terra-cotta | MARCH, Thiergartenfelde, near Charlottenburg, Prussia. |
| 67 | Luca della Robbia Friezes | MINTON, Stoke-upon-Trent. | 55 | Stove in White Porcelain | HOFFMAN, Berlin. |
| 81 | Flower-stand | MINTON, Stoke-upon-Trent. Modelled by the Baron MAROCHETTI. | 78 | Vase in White China | JOUHANNEAUD & DUBOIS, Paris. |
| 89 | Objects from a Dessert Service presented by her Majesty the Queen to the Emperor of Austria | MINTON, Stoke-upon-Trent. | 18 | Group of Objects in Glass | BACCHUS, Birmingham; GREEN, and APSLEY PELLATT, London. |
| 97 | Terra-cotta Figure of Galatea and Majolica Garden-Vases | MINTON, Stoke-upon-Trent. | 23 | The Crystal Fountain | F. & C. OSLER, London & Birmingham. |
| 128 | Pavement in Encaustic Tiles | MINTON, Stoke-upon-Trent. | 110 | Group of Objects in Glass | APSLEY PELLATT, NAYLOR, & GREEN, London. |
| 74 | Vase in Terra-cotta | Modelled by JOHN THOMAS, London, for E. L. BETTS, Esq. | 38 | Group of Glass | COUNT HARRACH, Bohemia. |
| 14 | Vase, "La Gloire" | ROYAL MANUFACTORY AT SÈVRES. | 86 | Stained Glass | WAILLES, Newcastle-upon-Tyne, and CHANCE, Birmingham. |
| 31 | Vase, "Rimini" | ROYAL MANUFACTORY AT SÈVRES. | 114 | Specimens of Stained Glass | LUSSON, and GERENTE, Paris. |

SECTION V.—ARCHITECTURAL DECORATION, FURNITURE, WOOD AND IVORY CARVING, ETC.

| | | | | | |
|-----|--|---|-----|---|---|
| 136 | Decoration derived from the Alhambra; being a portion of the Cabinet of the Queen of Spain at Aranjuez | RAFAEL CONTRERAS. | 152 | Sideboard and Furniture | SNELL, London. Designed by the Baron MAROCHETTI. |
| 63 | Decoration of an Apartment | JOHN THOMAS, London. | 143 | Sideboard, carved in Oak | JACKSON and GRAHAM, London. |
| 141 | Painted Arabesque | CRACE; with Decoration in Composition, by JACKSON & SONS, London. | 150 | Group of Furniture | SNELL, London. |
| 142 | Altar and Reredos | MYERS, London, and HARDMAN, Birmingham. Designed by PUGIN. | 90 | Cabinet in Oak, with brass panels | CRACE, London. Designed by PUGIN. |
| 42 | Paper-Hanging | HINCHLIFFE & Co., Chelsea. | 59 | Pianofortes | COLLARD & COLLARD, London. |
| 71 | Paper-Hanging | WOOLLAMS, London. | 83 | Marquetry Enrichments of a Pianoforte | BROADWOOD, London. |
| 95 | Paper-Hanging | TOWNSEND and PARKER, London. | 131 | Decoration of a Box of Water-Colours | ACKERMANN and Co. London. |
| 100 | Paper-Hanging | MADER, Frères, Paris. | 158 | Bedstead in Zebra-wood | LEISTLER and SON, Vienna. |
| 55 | Pilaster in Carton-pierre | CRUCHET, Paris. | 7 | Escrutoire in White Wood | WETTLI, Berne. |
| 15 | Window Ornament, from Tunis. | | 21 | Cassette, or Jewel-case, carved in Ivory | MATIFAT, Paris. |
| 34 | Ornamental Gun-stand, from Tunis. | | 155 | Cabinet in Ebony | LIENARD, Paris. |
| 54 | Chinese Looking-glass in carved Wood Frame. | | 126 | Panel, ornamented with Buhl | FOURDINOIS, Paris. |
| 9 | The Massacre of the Inuocents, carved in oak | GEERTS, Louvain. | 50 | Candelabrum and Arabesque | TRENTANOVE, Rome. |
| 69 | Niche and Figure, carved in wood | KNECHT, Paris. | 103 | { Florentine Mosaic | WOODRUFF, Bakewell. |
| 62 | Group of Flowers, carved in wood | WALLIS, Louth, Lincolnshire. | | { Enamelled Slate | MAGNUS, Pimlico. |
| 130 | Cradle, carved in boxwood | ROGERS, London, for her Majesty the Queen. | 118 | Jade-stone Vases, from China. | |
| 75 | Bedroom Furniture, in marquetry | TROLLOPE, London. | 52 | Bookbinding and Inlaying | BATTEN, Clapham. |
| | | | 96 | Bookbinding | J. and J. LEIGHTON, London. Designed by W. LEIGHTON. |
| | | | 109 | Book-cover in carved Ivory, presented to her Majesty the Queen by the Emperor of Austria. | |

SECTION VI.—OBJECTS FROM INDIA.

| | | | | | |
|-----|--|--|-----|---|--|
| 24 | Kincob Pattern, woven at Ahmedabad. | | 124 | Enamelling, from Arms. | |
| 28 | Cashmere Scarf-end. | | 135 | Decoration of Metal-work, from Arms. | |
| 72 | Kincob Pattern. | | 152 | Group of Objects, principally enamelled. | |
| 12 | Embroidery, from Dacca. | | 2 | Painted Lacquer-work, from Lahore. | |
| 16 | Elephant Trapping. | | 32 | Lacquer-work. | |
| 36 | Embroidered Boot-front, Scindian manufacture, from his Highness Meer Ali Moorad. | | 112 | Lacquer-work, from Cashmere. | |
| 44 | Shawl, from Delhi, the pattern worked on a Cashmere ground. | | 157 | Ivory Throne and Footstool, presented to her Majesty the Queen by his Highness the Rajah of Travancore. | |
| 48 | Scarf-end, embroidered at Dacca, on white muslin. | | 40 | Group of Crystal Vases and Jewellery. | |
| 56 | Embroidery, in white silk on black net, from Dacca. | | 104 | Decoration of Saddle-cover. | |
| 84 | Embroidery, on black cloth. | | 68 | Borders from Illuminated Manuscripts. | |
| 88 | Embroidery, on crimson silk. | | 149 | Enrichments from Manuscripts. | |
| 140 | Bullion Embroidery. | | | | |





Altona

M. D. WYATT DIRECT

J. A. VINTER, DLD ET LITH

THE AMAZON
BY KISS OF BERLIN

PLATE I.

THE AMAZON.

BY KISS.

THIS magnificent group, in which the boldest conception and treatment of a grand idea are tempered by an exquisite appreciation of beauty and refinement of execution, is probably the noblest work of art now existing, in which man has displayed the mastery his intelligence has enabled him to gain over the "stubborn metals." As such it has been selected to form the subject of our first plate.

The merits of an object, upon the production of which so high an order of imagination and realisation have been brought to bear, are so evident, that minute criticism becomes inapplicable, and would only interfere with that broad impression of delight which should be conveyed to the mind by the contemplation of so grand a manifestation of the power of art. Instead, therefore, of dwelling on its many great beauties, or on its few defects, we shall prefer giving a short account of the rapid development of that branch of industry in Prussia, of which it is so fine a specimen.

The original model for this group, when made by Professor Kiss, then an artist comparatively unknown, excited so much enthusiasm and admiration as to lead to the formation of a subscription fund to defray the expenses of its reproduction in bronze. In the year 1839 the great casting was successfully made, the group was presented to the King of Prussia by the subscribers, and was placed in front of the Royal Museum at Berlin, where it now remains, a monument worthy to adorn a capital, to the beauty and grandeur of which men such as Schinkel, Rauch, and Cornelius, have contributed in their respective arts.

The impetus which the execution of the great works in bronze of Cellini gave to the advancement of the art of casting in that metal spread into all the countries of Europe, and among others into Prussia. In that country many remarkable monuments were executed, but towards the year 1700 the processes fell to a great extent into disuse: as late, however, as 1713, statues, in the formation of which the method detailed by Cellini was strictly followed, were cast at Berlin by Jacobi.

For about one hundred years the art seems to have been lost altogether in Prussia, since it was not until the year 1818 that the Parisian founder Lequine was invited to Berlin by Schadow, who was then Director of the Royal Academy of Fine Arts. The first casting executed by Lequine was after his patron's statue of Luther, which was ordered for the birthplace of the great Reformer. Quickly in succession then came the statues of Blucher by Schadow, and many important works by Rauch. All these were executed at the royal foundry, and by them the foundation was laid of a flourishing branch of industry. Private speculation began to take the subject up, and many excellent castings were executed by Hopfgarten. A school was established by the Institute of Industry to educate workmen, but, owing to the untimely death of its Professor, it failed to effect the good which might have been expected to result from its operations. Messrs. Dinger and Feirabend, both intelligent young artists, were sent to Paris by the above-mentioned Society, and on their return executed many works successfully. By the former were completed the principal parts of the beautiful fountain which Schinkel designed and Kiss modelled. Several French artists and engravers, such as Coué and Gonon, contributed by their beautiful chasing to the perfection of the principal works cast in Berlin. Under these French artists there studied a young German, a native of Culmbach, who came to Berlin in the year 1818. Christoph Heinrich Fischer immediately distinguished himself by his talent, and was soon employed to realise,

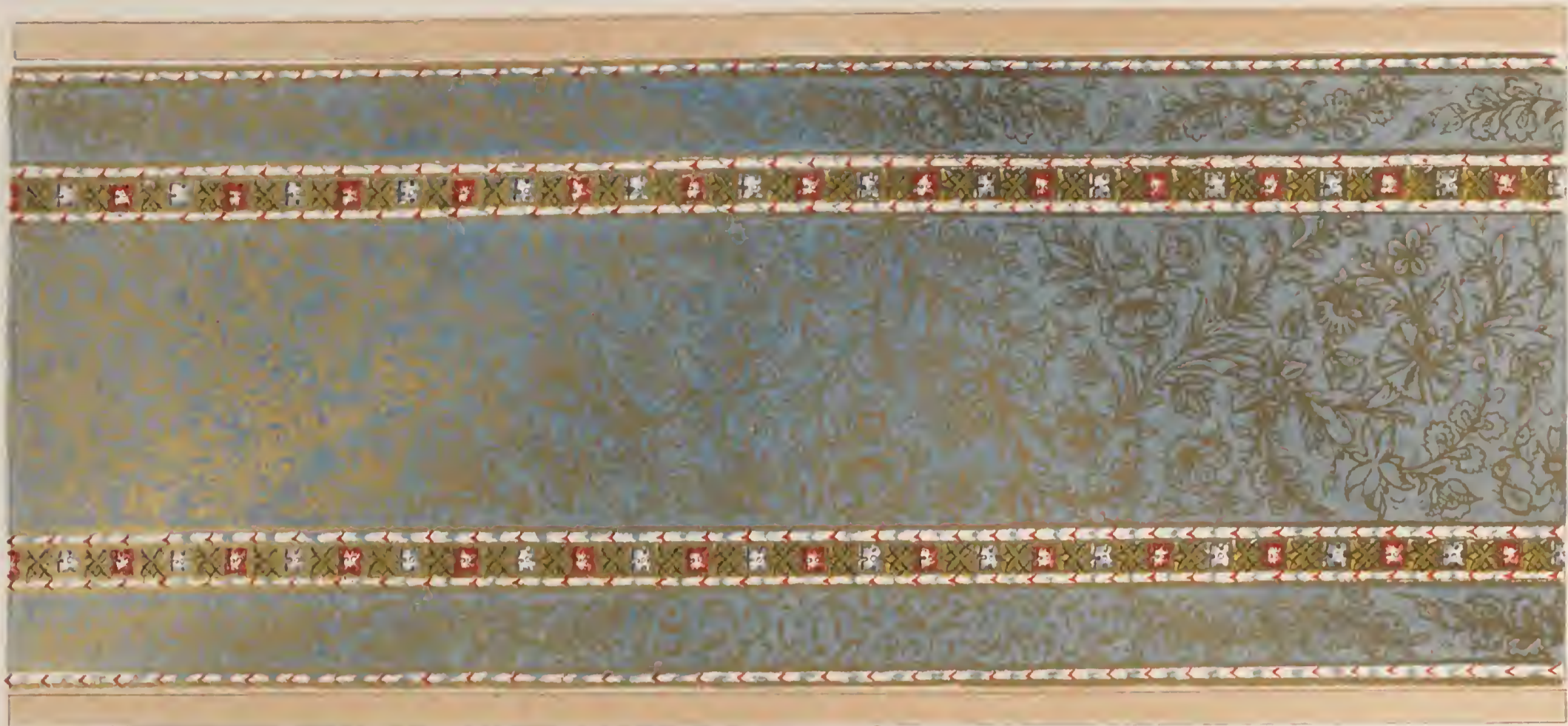
THE AMAZON.

in bronze, some of the finest productions of Tieck and Rauch. The reputation he acquired by his execution of these important works, induced the subscribers to the fund for causing the group which forms the subject of our present notice to be cast in bronze, to place that great work in his hands; and every visitor to Berlin bears testimony to the perfection with which he honoured the trust reposed in him. In that masterpiece of bronze-work the climax of the art has been attained, and Fischer has placed himself on a level with Stieglmeyer and Miller, the celebrated founders of Munich.

The group which now stands in the Great Exhibition is a facsimile of Fischer's bronze, executed in zinc by M. Geiss, of Berlin, and bronzed over by a process employed by himself alone.

It is only of late years that zinc has been applied to furnish the material of works of art in any country, and considering that the first attempt in the Royal Iron Foundry of Berlin was only made in the year 1832, the progress since that year is truly remarkable. The great mind of Schinkel was one of the earliest to perceive the capabilities of this material to minister to the requirements of art, and in a memorandum of his, dated the 3d of May, 1840, he eloquently urges its immediate adoption as a substitute for bronze, &c. The Prussian public were not slow to avail themselves of the beautiful objects which issued from the foundries of M. Devaranne and of M. Geiss, the two most distinguished proficient in the processes of fabrication. The finish of the group of the Amazon, which, as we have stated, was cast by M. Geiss, must convince every one that Schinkel's anticipation of the perfection to which the manipulation of zinc might be carried was by no means unreasonable.

Much as the works of such sculptors as Rauch and Kiss must endear them to all lovers of art, in those who have ever had an opportunity of becoming acquainted with the artists themselves, the manly openness, dignity, and modesty of the two great men, and their true and unaffected enthusiasm for the good and beautiful, must have excited feelings of yet higher respect and yet deeper interest.



1872-1873

1874-1875

1876-1877

SPECIMENS OF PAINTED LACQUER WORK FROM LAHORE

DESIGNED BY THE ARTIST AND PAINTED BY THE ARTIST AT THE RESIDENCE OF THE DIRECTOR

PLATE II.

SPECIMENS OF PAINTED LACQUER-WORK FROM LAHORE.

THE possession of the substance known in commerce as "lac," and of vegetable oils, which, with scarcely any preparation form natural varnishes, has given rise, in Japan, China, and many districts of India, to that branch of manufacture generally known as "lacquer-work." The term, however, is a very vague one, since under it are usually comprehended not only objects in the production of which many various processes of the application of "lac" are involved, but many other articles, into the formation and decoration of which it is not likely that any particle of that material really enters. The substance "lac" is an exudation from various trees, mostly of the fig species. A peculiar insect, the *coccus ficus*, perforates the tender bark of the smaller branches and shoots, for the purpose of depositing its eggs. About the perforations thus made a milky liquid coagulates, which, solidifying on exposure to the air, forms a resinous covering entirely surrounding the bough, and embalming the insects, as flies are embalmed in amber. The thin coating when separated from the twigs becomes "stick-lac." When boiled in water and broken up, it becomes "seed-lac;" and when melted and reduced to thin sheets, it constitutes what is known as "shell-lac."

"Lac" possesses two distinct properties of great commercial value, since, while as a resin it is of unequalled purity, it derives from the insects embedded in it colouring matter, which is of the greatest value in the production of a red dye. The colouring matter is obtained from "stick-lac," probably by a dissolution in some alkali and the admixture of alum, causing a precipitate, which, when formed into small square cakes and dried, constitutes "lac-dye," a substance which has been very largely imported into this country for many years.

"Shell-lac" enters into the composition of the best sealing-wax, possessing the property of melting without charring on the application of heat.

In one variety of Indian and Chinese "lacquer-work," a kind of sealing-wax is spread to a considerable thickness on wooden boxes or cabinets, and is then worked over with patterns indented, with slightly heated stamps, into the external coating, and then finished with cutting tools.

In another variety, that generally known in this country as old japan-work, the lac, dissolved in spirit or essential oil, forms a varnish, which being applied to wood or papier-mâché in successive coats produces at last a beautiful smooth surface. Upon this surface, when dry, any amount of ornament may be painted with varnish, over which gold or bronze dust being powdered, adhesion to the wet varnish only takes place where the pattern has been traced; and thus were produced the cabinets and boxes which formed the favourite decorations of saloons in the days of Hogarth and the "Spectator," exciting the liveliest competition among the fair frequenters of the celebrated old china auctions.

The gilding of those cabinets was sometimes executed partly in leaf-gold, and partly by the above process of powdering. The contrast of the two textures, heightened by partial burnishing, and occasionally lowered by tinted varnishes, was productive of very happy effects, which might be successfully imitated in the present day. Frequently thin veneers of mother-of-pearl and ivory were made to adhere to the surface by the employment of the "lac" as a cement, and by such additions the richest effects were produced.

In the decoration of the elegant boxes from which the illustrations shown in Plate No. II. have been taken, little, if any, lac has been used. The wood forming the basis upon which the patterns have been executed, has been covered over with a ground probably of plaster and white of egg or size, similar in composition to

SPECIMENS OF PAINTED LACQUER-WORK FROM LAHORE.

the *intonaco*, or coating made use of by the early Italian painters, and known as *gesso*. Over this ground has been spread a wash of some rich vegetable oil, or possibly of lac dissolved in spirits. Upon this coating, known in China as *tong yeou*, the painting is executed. On the completion of the painting a number of thin coats of beautifully clear varnish have been applied, in order to bring the whole to that fine hard polish for which such works are celebrated. Occasionally in this variety of work raised ornaments are produced by stamping the ground before it has set and become hard, in a manner similar to that in which the early painters of the Florentine and Siennese schools loved to decorate the *nimbi*, &c., surrounding the heads of the saints.

Articles executed by the above process are frequently imitated in a coarse way, by substituting for the plaster and white-of-egg ground a coat of thick white paint, on which patterns of less delicacy and grace are then painted. A final coat of lac varnish preserves the painting, and brings the surface to a state quite good enough for the common class of objects, to which this decoration is most frequently applied.

As other specimens of "lac-work" will be given in succeeding numbers, we shall reserve our notices of the knowledge of art displayed in their arrangement, simply calling the attention of the fair sex, and of the Coventry manufacturers, to the beautiful ribbon patterns suggested by these exquisite borders.



FRED. SMALLFIELD, D.F.S.

M. DIBBY, W. & A. T. 11, R. S.

L. SPENCER, LITH.

DAGGER AND SHEATH IN THE DAMASCENE WORK,
BY ZULOAGO OF MADRID.

LONDON, PRINTED AND PUBLISHED, SEPTEMBER 1851, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

A HUNTING-KNIFE AND SHEATH,

EXHIBITED BY D. E. ZULOAGA, OF MADRID.

THE reputation acquired by Spain for the manufacture of admirable steel may be traced to a remote period, since in the time of Polybius we learn that the *hastati*, or Roman spearmen, carried upon their hips Spanish swords. The manufacture appears to have been early carried on both at Toledo and Bilbao by the Spaniards, who possessed the raw material in its highest perfection in the rich mines of Biscaye, and in many other parts of the country. From the refined knowledge of the art of metal-working early acquired by the Saracenic race, of which such ample evidence is given by the wide-world celebrity of the Damascus blade and the exquisite Moussoul inlaying, there can be no doubt that Spain acquired those processes which caused her weapons to be eagerly sought after throughout the middle ages. From A.D. 712, when Toledo was taken by Tarik Ibn Zeyyad, after the battle of Guadalete, until A.D. 1085, that city, with the exception only of Corduba, ranked as the principal centre of Moorish intelligence and magnificence; and when, as the earliest as well as the most important see in the Peninsula, it subsequently became the residence of the Castilian kings, its population increased to 200,000, and its fabrication of arms extended coincidently. During the middle and latter portion of the fifteenth century the royal manufacture was at its highest state of perfection, and rivalled successfully the celebrated establishments of Ferrara and Milan. In the Hôtel Clugny collection at Paris, and in the "Armeria Reale," at Madrid, evidence of the perfection of the national workmanship of that period may be traced. In the latter collection especially, a tolerably complete chronological succession of objects may be found, illustrating the mingling of Moorish with Spanish design and process, at various points in the history of the two races.

The specimens of sword and dagger blades exhibited by the Royal Ordnance of Toledo, and the exquisite damascene work of Signor Zuloaga, bear testimony to the fact, that the "right hand" of Spain has not forgot "its cunning," and that in the midst of revolution she has yet been enabled to preserve in full perfection the skill which made her "Toledos" and "Bilbos" celebrated throughout the world. Mr. Inglis, in his Travels, furnishes a poor description of the manufactory, but we have been given to understand that since the period of his visit very important changes have taken place, and that the whole has now been placed upon a new and extended footing.

In describing other objects of a somewhat similar nature, we shall hereafter take occasion to allude to the various processes by which the beautiful inlaying in gold and silver which decorates the *couteau de chasse*, engraved in this Plate, have been effected; for the present we shall only offer a few remarks on the various forms of those objects on which the skill of Spanish cutlers was engaged at different periods of history.

The original Spanish *gladius* used by the Romans was about twenty inches long, and was of steel, straight, double-edged, and cut-and-thrust.

In the early centuries of the middle ages, the European sword gradually lengthened until it grew into the long, straight sword of the Bayeux tapestries. Every soldier carried with him, in addition to his sword, a sort of knife (*coltellus*), used generally for his food, but sometimes as a weapon also. Daggers were occasionally

A HUNTING-KNIFE AND SHEATH.

worn, but principally as an indication of nobility. As mail-armour was made stronger, swords were increased in weight and size, until they grew to such a length as to require to be slung on the back instead of being attached to the hip. The unwieldiness of this sword causing it to be rather difficult to kill a man after he had been cut down on the field of battle, the French, in the thirteenth century, introduced the *épée à l'estoc*, or stabbing-sword; this subsequently became known throughout Europe as the *misericorde*, and was regarded as a necessary accompaniment to the large sword of battle.

When plate-armour became universal in the latter part of the fourteenth century, single-handed swords were found insufficient to make much impression, and hence arose the great two-handed swords, which obtained especial favour in Germany. As the whole of the body was now encased in iron, it was only through the meeting-points of the various pieces of armour that a *coup de grace* could be given to a fallen knight; the blade of the *misericorde* was therefore made very thin, and its point sufficiently fine to penetrate the smallest interstice. It was partly with the heavy two-handed swords, partly with their lances, that the Spanish cavaliers finally achieved the expulsion of their more lightly-clad antagonists the Moors. Up to that epoch, it was principally in the fabrication of their crooked scimitars and daggers that the Moors had excelled; and in that of their lighter swords of state, the Spaniards. As very heavy body-armour was relinquished piece by piece, light swords came into fashion, and strong indeed must have been the quilted doublet that could withstand the thrust of a Bilbao or Toledo rapier. First adopted by the French as the *épée de Passot*, their use spread rapidly throughout Europe, and it was in the form of the thin, straight "small-sword," with a blade of exquisite temper and a handle of the choicest design, that the Spanish swords obtained their greatest popularity.

That a wide demand for Spanish weapons is likely to revive, there can be little doubt, so long as a Signor Zuloaga continues to lavish upon them the exquisite workmanship he exhibits. His factory is increasing rapidly, since, though only established five years, it already employs constantly no fewer than thirty first-class artisans.



EMBROIDERY IN BUILT-UP FORM UNITS

PLATE IV.

SPECIMENS OF EMBROIDERY FROM TUNIS.

THESE fine patterns have for the most part been selected from the fittings of saddles, the comparative beauty and costliness of which are in the East sure criterions of the social position of every rider. Designed with great taste to occupy, without crowding and without contortion, the singularly shaped spaces demanded by the peculiar form of the saddle, they offer an agreeable example of the manner in which the skilful designer may take advantage of what appears at first sight to be a difficulty, for the purpose of exhibiting the mastery with which his artistic powers enable him to overcome it. It is a remarkable peculiarity of Oriental design that, despite of the irregularity of any of the compartments into which a surface may be subdivided, it is exceedingly rare to find that every leaf and flower of the ornament intended to fill them is not complete in all its parts, and adapted to occupy its position without any apparent cramping or distortion. Considering how often we meet in works of high art with a picture-frame cutting half through the body of a man or a horse, or a figure doubled up into an unnatural attitude in one angle of a pediment in order to get it in, we cannot but feel that a useful hint is afforded by that ingenious disposition which can adapt, with such skill and invariable success, the subject of the composition to its bounding geometrical lines.

In addition to the value which the embroideries of Tunis possess as beautiful specimens of design and manual dexterity, it is to be remembered, that a peculiar historic interest attaches to every production of those, among whom still linger the traditions of that Art by which the wonders of Corduba and Granada were achieved.

In the orphreys of the Dalmatic shown in the mosaic representation of King Roger, in the Church of the Martorana at Palermo;* in the actual vestments which are believed to have wrapped the body of King Roger, and others of the early Norman kings, figured in Danieli's work;† and in the singularly interesting paintings on shields given in Mr. Owen Jones' "Alhambra," we have ample evidence of the skill evinced at early periods by the Moors in the elaboration of rich embroidery, and the extent to which it was customary to cover over every article of costume with elaborate blazoning in gold and colours. A comparison of these interesting relics with the examples which the liberality and public spirit of the reigning Bey of Tunis have consigned to this country for exhibition, clearly demonstrates how little the traditional patterns have changed in character during centuries of political vicissitude. Handed down, as we may imagine them to have been, from father to son, from master to apprentice, they would appear to have rather gained than lost in beauty of form and perfection of execution.

When the learned Girault de Prangey‡ seeks to trace to their source the origin of the graceful ornaments of the Arabs, which, as we have seen, still embellish the works of the Tunisians, it is to Persia, the magnificent, that he turns. "It is highly probable," says he, "that the Arab races brought in contact (during the earliest ages of Islamism) with Persia and the surrounding countries, borrowed from them somewhat of their luxury and of their arts. The emigration of the Arabs to the north soon bore these precious advantages to the capital of their growing empire, since under Omar may be clearly recognised the complete domination of the arts and sciences of the Persians. History shows us this Caliph, collecting

* Gally Knight, "Saracenic and Norman Remains in Sicily."

† "Regali Sepolchri del Duomo di Palermo." Napoli, 1814.

‡ "Essai sur l'Architecture des Maures et Arabes, en Espagne, en Sicile, et en Barbarie." Paris, 1841.

SPECIMENS OF EMBROIDERY FROM TUNIS.

with care their customs and their processes, with a view to the establishment of the Hegira; and Makrisi* assures us that he caused to be struck *dirhems* of the 18th year of the Hegira in imitation of the coins of the Sassanides."

To return to the actual specimens under consideration, we have been informed that the whole of them are executed by men, natives of the town of Tunis, whose sole occupation consists in the execution of similar works. The value of many of the rich costumes is very great, frequently amounting, exclusive of a splendid mantle (which may alone be worth £100), to as much as £150 sterling, while a saddle, with its trappings, embroidered in a style similar to that from which the illustrations of the present Plate have been taken, could not be procured in Tunis for less than £400.

* "Traité des Monnaies," &c.



THE CHILD CHRIST ("CHRIST ENGEL")
 A BAS RELIEF IN WHITE MARBLE BY RIETSCHEL OF DRESDEN

THE CHRIST-CHILD, A BASSO-RELIEVO IN MARBLE,

BY RIETSCHEL OF DRESDEN.

AMONG those traditions which have grown into household words in the domestic life of Germany, there is none more graceful than that of the "Christ-Engel." The legend authorises a belief that on Christmas-Eve (*Weih-nachts-abend*) Our Saviour, taking upon himself the similitude of an infant, revisits this world to spread joy and happiness in every pious family, and more particularly to convey to those whose tender age assimilates to that under which he originally manifested his presence on earth, his benediction on those festivities to which German children especially look forward with anticipations of unfeigned delight. The Christmas-tree, which at that season bears fruit most precious to childish affections, is supposed to fructify under the genial influence of the especial blessing conferred by that visitation.

The artist from whose elegant fancy the subject of our plate has emanated, has attempted to embody the transmission to earth, by angelic agency, of that much-wished-for visitant, and the hope and joy of those who have looked forward to his descent as a season of peculiar "peace on earth, and good will towards men." The extreme elegance of the lines of this composition,—the seraphic beauty of the angel,—the pure beneficence expressed in the countenance of the Infant Christ, and the unalloyed hope and faith of the attendant children, are exquisitely expressed; and if ever a production belied Madame de Staël's flippant observation, that the Germans "could conceive art but not execute it," this refined work, evincing so high an order of thought, knowledge, and skill, may be allowed to have done so.

The artist Rietschel, born at Pulsnitz, near Dresden, early in the present century, received his artistic education at Berlin. Having while quite young evinced considerable talent in his profession, he was employed as modeller at the celebrated iron-works of Count Einsiedel at Lauchhammer, where he worked for a short time. On giving up his engagement there he revisited Berlin, and entered the studio of Rauch. In 1831 he travelled to Italy, where he remained some months, and on his return he competed successfully for the great prize of sculpture, offered by the Royal Academy of Arts at Berlin. The reputation acquired by this effort procured him an invitation to reside at Dresden, and to accept the position of Professor of Sculpture in the Royal Academy of that city. With his appointment Rietschel received a commission to execute a monument to the late King of Saxony, Ernest Augustus (the Just). The monument consisted of a sitting figure of the monarch, placed upon a square pedestal, at the four angles of which a corresponding number of allegorical figures were placed. These consisted of Wisdom, Piety, Justice and Mercy. The pedestal was designed by Schinkel, and several years subsequently (in 1845) it was erected, with some slight modifications of ornament by Gottfried Semper, in the court of the Zwinger Palace at Dresden.

The appointment of Semper, in 1834, as Director of the Architectural Academy at Dresden, and the commission he subsequently received to prepare the designs for the New Theatre in that city, produced an occasion admirably suited to develop the abilities of Rietschel. It was proposed to fill up the two tympana of the pediments of that beautiful building with sculpture, and the important task of carrying out this proposition was at once confided to our artist.

It is remarked by an intelligent critic, M. Hippolyte Fortoul,* that the union of antique form and

* "De l'Art en Allemagne." Paris, 1841.

modern sentiment,—that alliance of which Carstens had at the end of the last century only dreamt,—has been satisfactorily effected in this great work. In the subject of composition which fills the eastern pediment, says he, “the artist has accepted the definition that Aristotle has given of Tragedy; commenting on it with the spirit of this age, and inscribing it in the language of the ancients. To purge the passions by the emotions of art,—to submit the disordered forces of the soul to the harmonious laws of the beautiful,—is the idea that the sculptor has expressed, by forms invariably noble, by attitudes full of ease and freedom.” At one extremity of the pediment, Sacrilege and the violent passions are represented in the story of Orestes. The priest is overthrown at the foot of the altar,—the attendants, despairing, bewail the death of Ægisthus; whilst the Furies stimulate their grief, and pursue the murderer, who casts himself exhausted at the feet of Minerva. In the middle of the pediment Melpomene presents her frowning mask to the Furies, and turns her own calm countenance towards the other side of the composition, in which Minerva conducts the suppliant to three august, aged men,—Sophocles, Æschylus, and Euripides, seated as judges, but welcoming and opening their arms to the unhappy. Behind them the sword, drawn in anger, is returned to its scabbard, and Man employs in subjugating nature the energy previously directed at once against his fellow-men and against himself.*

It is remarked by M. Fortoul, that both in the combination of its lines and the severity of its forms, this pediment recalls that of the temple of Jupiter Panhellenios at Egina, the preservation of the fragments of which at Munich has unquestionably exercised an influence over some of the productions of modern German sculpture. One point of similarity certainly exists between the two, namely, that in each all the figures are modelled in the round and detached from the ground of the tympanum; but in his attention to the delicate modelling of the human form, and to its easiest and most graceful poses, Rietschel must be admitted to have so far surpassed that monument of ancient art, that we can scarcely believe it to have ever materially affected his imagination.

In the corresponding pediment to this, in which Tragedy is represented, Rietschel has not less successfully personified the Lyric Drama—representing the influence of Music elevating the human soul. In the centre of the composition Religion soars aloft on eagles’ wings,—on the right is placed the Spirit of Epic, on the left those of Lyric and Idyllic poetry. At the extremity are Genii emerging from beneath the wings of Night. In addition to these truly noble works, Rietschel executed for the same theatre four sitting statues—Goethe and Schiller, Mozart and Glück.

A pediment, somewhat similar in subject to the last described, was also carried out by our artist for the Opera House at Berlin. For Leipsic several of Rietschel’s most celebrated works have been undertaken. His great monument to Lessing, and several others, have sustained in that city the high reputation he so early acquired in Berlin. His principal work at Leipsic is the beautiful frieze with which the “Aula,” or great hall of the University, is surrounded. In that most charming series of compositions the sculptor has embodied the whole progress of the developement of the human intellect, from the Chaldean shepherds gazing in wonder and admiration at the stars, to the students of the nineteenth century assembled round the professor’s chair. This truly philosophic cycle of subjects the artist has adorned with many graceful episodes—he has modelled the whole in a natural and well-sustained style, and has carried out every detail conscientiously, and with extreme delicacy of handling. This same series of compositions, cast in plaster, decorates the staircase of the Royal Palace at Dresden.

Of late years Rietschel’s talent has been principally devoted to compositions for works proposed to be introduced in the new Museum at Dresden, and to the execution of a monument to Weber, the musician, which is now on the point of completion. It is proposed that it shall be placed opposite to Semper’s Theatre.

We have now briefly indicated the leading public works over which the genius of Rietschel has shed its illuminating influence; there yet remain a multitude of smaller works, which, if not evidencing the same power, are endowed perhaps with even more beauty. Of these it will be our privilege to speak in a second notice of the works of this truly great artist.

It gives us sincere pleasure to acknowledge the kind assistance that has been rendered to us by Gottfried Semper, by whose aid alone we have been enabled to appreciate to its full extent the power and ability of his old friend and brother professor.

* This pediment is accurately engraved in the great work, “Histoire de l’Art moderne en Allemagne, par le Comte Athanase Raczyński.” Paris, 1839. It has also, together with its companion, been excellently reproduced on a larger scale by one of the German Art-Unions.





H. RIDGEMAN, 1873

© 1873 BY H. RIDGEMAN

J. BIRCH & CO. LTD.

A GROUP OF EARTHENWARE VASES,
BY MARGARET DE VON SIBILLE, FRANCO

PRINTED AND PUBLISHED BY H. RIDGEMAN, 1873, THROUGH HIS PATENT OFFICE

PLATE VI.

VASES IN BEAUVAIS WARE,

BY MANSARD OF PARIS.

ABOUT twenty years ago M. Zeigler, a young French artist, travelled in Belgium in pursuit of picturesque subjects for his pencil. Studying the pictures of Gerard Dow, Teniers, Jan Steen, &c., he was struck with the beauty of many of the old tankards and pitchers so familiar to collectors of the works of Dutch and Flemish masters.

Finding in some few private collections at Ghent, Bruges, &c., elegant specimens of this variety of ceramic art, M. Zeigler made careful studies of the forms of many of them. On his return to France he conceived the idea of reproducing these objects, and turned his attention to the selection of a fitting locality for the experiment. Remembering the reputation which the immortal works of Bernard de Palissy, in the age of Francis I., had conferred upon the clays in the neighbourhood of Beauvais, M. Zeigler directed his inquiries to the discovery of such a quality of material as would be best adapted to the particular reproduction which he had in view. He finally decided on Voisinlieu, near the above-mentioned city, and there established a manufactory. After many attempts he finally succeeded in producing, at first an imitation, and subsequently an origination, which has stamped the articles proceeding from his establishment with the impress of taste and with a remarkable individuality of character.

In his interesting and beautifully executed work on Ceramic Art,* M. Zeigler has recorded his studies, both literary and pictorial, in connexion therewith; and has produced an extremely valuable addition to the more well-known treatise of Brongniart.

M. Zeigler's style of composition, as applied to vases and other similar objects, may be divided into two varieties. One of these appears to be based upon the study of Oriental forms and ornaments, which are brought together in geometrical perforations and conventional interlacings in low relief; and the other introducing only, by way of decoration, simple combinations of leaves, flowers, stalks, branches, &c.

Although at first disheartened by the partial failure of many of his experiments, our artist, with a perseverance worthy of, if not equal to, that of his great predecessor, Bernard de Palissy, finally succeeded in so realising his conceptions as to be enabled to introduce them satisfactorily to the world. His trade soon extended, and a very large demand for his productions was created, not only in France but in other countries of Europe.

After some years' successful practice, M. Zeigler became anxious to return to studies more directly congenial to his profession as a painter. He therefore resigned his interest in the concern into the hands of M. Mansard, who had been for some time associated with him. The commercial and manufacturing talent of the latter gentleman has materially assisted in maintaining the excellence of the Beauvais ware, and permanently establishing it in public estimation. Sales are effected, and the main portion of M. Mansard's business is transacted, at his extensive dépôt in the Rue Richelieu, Paris.

Among the improvements which have been of late years added to the original scheme of M. Zeigler,

* "Études Céramique, par J. Zeigler." Paris, 1850.

VASES IN BEAUVAIS WARE.

may be noticed, the power of picking out, in varied colours, the different subjects, such as leaves, flowers, tendrils, conventional patterns, &c., which form the decoration of these vases. The tints being applied in enamel are perfectly vitrified under the action of the fire, and thereby become as imperishable as the objects upon which they are applied.

One of the peculiarities of design in objects similar to those engraved in the accompanying plate, is a close adherence, in the primitive forms to which ornament is superadded, to those curves and contours which spring from a legitimate exercise of the potter's art, and the natural modelling given to the clay while it is upon the wheel, by his hand. There can be little doubt that the most beautiful forms in Greek and Etruscan vases have been generated from this simple process of formation, and from the refined delicacy of touch acquired by the potter during years of practice. It is not uninteresting to observe, in corroboration of this view, that the perfect outline of some of the commonest objects of pottery contributed to the Exhibition, from India, Tunis, Turkey, &c., demonstrates the method by which contours, equal in grace to those of Etruria and Magna Grecia, have been produced.

M. Zeigler is not the only artist in France on whom the celebrity of Bernard de Palissy has operated in inducing a successful revival of obsolete productions, MM. Landais and Avisseau, of Tours, have accurately reproduced, in the present day, those quaint dishes, covered with skilfully-modelled and painted representations of fruit, flowers, fish, &c., and coated with a rich vitreous glaze, which formed the especial delight of the nobles of the age of the Renaissance. Whether such a revival quite coincides with our ideas of the utilitarian application of plates and dishes, is a question upon which, considering the apparent popularity of these works, it might be ungracious to enter further.



H. RAPER DEL.

M. DICEY WYATT SCULPT.

T. BEEFORD LITH.

WHITE-WOOD CABINET.
 BY MICHEL WETTLY OF BERNE.

ESCRUTOIRE OF WHITE WOOD,

BY WETTLI OF BERNE, SWITZERLAND.

AMONG the various toys with which the Continent supplies England, there are few which have been generally received with more satisfaction than those elegant trifles in white wood, the profits on the production of which contribute in no small degree to the comfort of a proverbially hardy and industrious race.

While a few of these fancy goods are imported from the Tyrol, the majority are brought into this country from Switzerland. Appenzell in the canton of St. Gall, Brienz and Berne in the canton of Berne, and Groeden Grisons on the borders of the Tyrol, appear to be the principal seats of the manufacture.

Some years ago, when travelling on the Continent was less in vogue than it is in the present day, these objects, the execution of which formed principally an amusement, and scarcely an occupation, for the mountaineers during the winter months, were comparatively unknown beyond the limits of the native cantons of their producers. Travellers, admiring the dexterity with which these trifles were fashioned, commenced the purchase of them, as *souvenirs* of their excursions in the country. The shopkeepers to whom the mountaineers had at first disposed of their ingenious productions, finding that a taste for them was spreading among the visitors to their lakes and mountains, encouraged a more general production; and when, in later years, Switzerland was overrun with tourists, the *dépôts* increased, and the manufacture grew in extent and importance. The cheapness with which these elegant objects could be delivered to the market, subsequently induced speculators to export them, and they are now largely introduced into England, France, and Italy.

As the demand increased, the character of the objects improved. The quaint spoons, cups, salad bowls, &c. of the self-taught artist, decorated only with notchings, hatchings, and rude imitations of leaves and flowers, have gradually given way to more ambitious and more cultivated attempts. Many of the productions in the Great Exhibition which have emanated from the manufacturers of this variety of articles, display very considerable knowledge of form, and graceful feeling for ornamentation; none, perhaps, equalling in those particulars the object which we now engrave.

Much of the cleverness which especially distinguishes the Bernese carving must be ascribed to the influence which was exercised over the art by Gottfried Mind, an eccentric artist, who was born at Berne in 1768, and died in his native place in 1814. His representations in wood of every species of animal, and more particularly of cats and bears, are still eagerly sought for in Switzerland; and his little arrangements of rustic groups and figures are characterised at once by remarkable truth of expression and a charming *naïveté* of composition.

In the production of the more ordinary specimens of this department of industry the tools employed are of the simplest kind, the penknife being among the most important. In objects similar to that which forms the subject of our engraving, it must be evident that more elaborate tools have contributed to the refined execution with which the figures, animals, and other details are rendered.

A specimen of *marqueterie* by one of the Swiss exhibitors, M. Vogel of Thoune, in the canton of Berne,—being a round table made of twenty-eight different kinds of wood, inlaid with 38,000 pieces,—

ESCRUTOIRE OF WHITE WOOD.

furnishes us with full evidence of the possession by Switzerland of woods suitable for producing the variety of contrasted colours, which has been so successfully attained in the subject of our illustration.

Among the specimens of Swiss wood-carving contributed to the Exhibition which display the highest perception of character, we may particularly notice a small figure of Père Girard, a Franciscan monk, carved by M. Kessler, a sculptor of Fribourg.

The woods employed in these carvings are, for white, the spindle-tree and sycamore; for yellow, box; for brown, cherry; and for dark, walnut. These ingenious manifestations of the natural taste of the Swiss peasants have been largely introduced into England by Messrs. Evans and Son of Newgate Street, and many other importers.

In the Escrutoire we engrave, manufactured by M. Wettli, an ingenious arrangement of mechanism has been contrived, by means of which it has been adapted to accommodate itself to the convenience of writers in either a sitting or standing position. The factory of M. Wettli was established in the year 1837, and gives constant employment to twenty workmen.



W. G. S. S. DEL.

V. WIGBY WYATT. DIR.

F. REDDING, LITH.

PISTOLS, ENGRAVED AND INLAID WITH DAMASCENE WORK,
BY ZULOAGA OF MADRID.

LONDON PRINTED AND PUBLISHED, SEP. 1851, BY DAV & SON, LITHOGRAPHERS TO THE QUEEN.

PISTOLS, ETC.

BY ZULOAGA OF MADRID.

THE reputation acquired by Spain for the manufacture of the leading implements of war is as catholic, in its sense of universality, as her faith. In our notice of Plate III. the celebrity of her Bilboa blades and Toledo rapiers was duly set forth, in the present article we propose to notice her achievements in the production of fire-arms.

From Sir Samuel Rush Merrick's work on Ancient Armour we learn, that as early as A.D. 1325 the Moors had attained a perfect command over the employment of the renowned "Greek fire;" under which term there can be little doubt that a species of gunpowder was included by the middle-age writers, as well as the ordinary balls of inextinguishable fire. At the sieges of Baza, Martos, Algesira, and Tarifa, Ismael employed it at that period; and it appears that machines similar to those he is recorded to have used were immediately known to the Spaniards, and designated by them "dolia ignivoma," or "fire-flashing vessels." These instruments of discord were used in Italy in 1351, in England in the reign of Edward III., and in France at the same time,—being spoken of in that country as "gunnæ."

The limits of the present notice will not permit us to trace the minute shades of difference between the construction and orders of precedence of bombardons, periers, cannons royal, serpentine and bastard, culverins, sacars, and minions, pedreros, pattereroes, &c., still less the peculiarities of those varieties of artillery which were manufactured exclusively in Spain.

It was towards the middle of the succeeding century that portable fire-arms appear to have been introduced throughout Europe. According to Billius, a learned Milanese, who lived at that period, hand-guns were first used at the siege of Lucca in 1430. He describes the Lucchesi as having carried in their hands a club, a cubit and a half long, to which were affixed iron barrels. These they filled with sulphur and nitre, and by the power of fire, iron balls were thus ejected. In an entry of a roll of purchases made for Holy Island the following item occurs,* "A.D. 1446, Bought ii. hand *gunnes* de ere." From whence we learn that they were occasionally made of brass. The rude hand-gun was soon refined into the harquebuse, a weapon the invention of which is generally ascribed to the Italians. The chief improvements effected were the additions, of a proper stock, bent and formed at the end so as to fit to the shoulder, and of what was called the serpentine, a species of cock with a spring, which, on being released by a trigger, descended into a pan of priming, carrying with it the end of the match, and thus leaving both hands free to steady the aim.

In 1585 these harquebuses had become so common in Spain, not only for the uses of war, but for the purposes of sporting, as to have given occasion for the publication of an order in Council restraining the clergy from making use of them.† The harquebuses were soon divided into two kinds, the long and short,—the latter being called demi-hags. The former were soon so far lengthened as to require fork-rests to steady the gun upon; the latter were made smaller and smaller until they finally gave occasion to the origin of pistols. This latter variety of arms is stated to have been invented at Pistoia in Tuscany, by Camillo Vitelli.

* Fosbroke, II. 911.

† "Archabusio etiam dum iter faciunt aut in venationibus ne utantur clerici."—DUCANGE, *Gloss.* I. 362, ed. Bened.

The musquet is of Spanish origin, and the skilful use of it rendered the infantry of Spain celebrated throughout Europe. Authorities differ as to its having been used at the battle of Bicoigne, in 1521, but all acknowledge its terrible effects when wielded by the forces of the Duke of Alva in the Netherlands, in 1569.

The spoil of rich weapons which accrued to England from the capture of so many of the Spanish vessels on the occasion of the dispersion of the Armada, procured for this country a great variety of new types in form.* Stowe records a great lottery of costly armour and weapons which took place in St. Paul's Church-yard in the year following; and the collection formed by Queen Elizabeth, which probably originated the Tower Armoury as an exhibition, is described by Hentzner of Nuremberg, who visited it in 1598, as consisting of "many and excellent arms, as well for men as for horses † in cavalry engagements." Many a Spanish weapon is still existing in this country, taken from the wrecks upon the coast: of these some interesting specimens were exhibited at the museum formed at Norfolk by the Archæological Institute in 1847. ‡ From the gorgeous ornament with which everything manufactured by the Spaniards was decorated in the days of their almost boundless riches, and from their knowledge, through the Moors, of all the processes of inlaying and damascening, there can be no doubt that some of their fire-arms were of the most elaborate description.

It is justly remarked by the learned M. Labarte, § that no "sooner had fire-arms become portable than art was applied to their decoration. The barrels of harquebuses and pistols were enriched, like the armour of the period, with delicate engraving and ornaments inlaid in gold and silver. In their adornment splendid veneers were employed: ivory and wood, stained of different colours, were made use of; frequently the stock was covered with ivory of different colours; and subjects and foliage, &c., of extreme minuteness, were engraved upon them. The sides of the lock and the cock, &c., were also richly decorated; on them ornaments, arabesques, figures, in relief and even completely detached, were frequently carved."

In the production of the specimens of Spanish fire-arms we have engraved, M. Zuloaga evinces consummate skill, and we can imagine, to a military man, no more splendid offering than was made when "the Captain-General of Puerto Ricco, the Count Mirasol, the General Don Celestino Ruiz de la Bastida, the Peninsular regiments of Catalonia, Iberia, and the Asturias, and the regular Militia of the year 1846," offered the princely gift of this rich collection of arms to the Duke of Valencia, captain-general of the Spanish army.

* For particulars of the Spanish weapons, *vide* Hewett's "Ancient Armour."

† "Arma multa et egregia quam pro viris quam pro equis in equestri pugna."—PAULI HENTZNERI *Itinerarium*. Norib. 1629, p. 192.

‡ "Memoirs illustrative of the History and Antiquities of Norfolk." London, 1851.

§ "Description des Objets d'Art qui composent la Collection Debruge Dumenil, par Jules Labarte." Paris, 1847, p. 367.



CLAYTON DEL.

M. DIGBY WYATT DIRECT.

F. BEDFORD, LITH.

"THE MASSACRE OF THE INNOCENTS."
CARVED IN WOOD BY GEERTS OF LOUVAIN.

LONDON PRINTED AND PUBLISHED NOV. 1ST 1851. BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

THE MASSACRE OF THE INNOCENTS.

CARVED IN OAK, BY GEERTS OF ANTWERP.

TOWARDS the latter half of the fifteenth century, the purity of Gothic sculpture had materially declined. In place of those graceful conventional lines, and that earnest, but chastened expression, which characterise the works of the decorative sculptors of the thirteenth and fourteenth centuries, a more natural and forcible, though less graceful treatment of the human figure, both singly and in groups, was introduced. It was, however, reserved for the genius of Adam Kraft, Michael Wohlgemuth, Peter Vischer and his sons, Veit-Stoss, and the great Albert Durer, to create a new and more elevated style, by gradually expanding the angularity and meagreness of German art in the early part of the fifteenth century into that dignity and beauty which distinguished the Italian carving of the same period.

Whilst we are indebted to Adam Kraft for the beautiful *Sacrament's-Hauslein* of St. Lawrence Church at Nuremberg, we owe to Michael Wohlgemuth the elaborate carving of the Madonna and female saints which decorates the high altar of the church of St. Mary at Zwickau. The celebrity of the latter artist is, however, mainly associated with the influence which his taste exerted over that of Albert Durer. Peter Vischer and his sons executed the celebrated shrine of St. Sebald in the church of that saint at Nuremberg; and whilst the elder Vischer and Kraft imparted elegance of form and composition to works in stone and marble, it remained for their friend Veit-Stoss to introduce the same qualities into wood-carving. In the numerous works by that artist in the churches already mentioned at Nuremberg, and in the cathedral of Bamberg, he has displayed an amazing command over the technicalities of sculpture in wood, and successfully represented some of the most elevated passages of Holy Writ and legendary tradition.

Founded on the improvements introduced by these artists, a large number of carvings were executed throughout Germany and the Low Countries. In the district of the Rhine, particularly, a high degree of perfection was attained, not only in ecclesiastical wood-work, but in those rich and elaborate fittings which decorate the halls of the various corporations and guilds. Among the best examples of the latter class, we may especially notice the beautiful chimneypiece in the Town-hall at Bruges.

To this purer school of *renaissance* carving and arabesque decoration a mode of treatment succeeded, analogous to that introduced into painting by Rubens, Vandyke, and those of their scholars in whose works fulness of form frequently degenerated into vulgar sensuality. Among the contemporary artists of Flanders whose works occasionally exhibit a disposition to repress this tendency to exaggeration, it is but just to particularise the celebrated François du Quesnoy, better known as Fiamingo, who was born at Brussels in 1594, and died fifty years afterwards. The purity of his taste is strikingly manifested in the well-known statue of St. Agnes, in the church of St. Mary of Loretto, at Rome. Among those, on the other hand, whose style of composition was most sensibly influenced by the extravagancies of the school of Rubens, we may mention the names of Verbruggen, Vervoort, Broecksent, De Sutter, Verschaffelt, and Laurent Delvaux. In spite, however, of fluttering draperies and eminently theatrical compositions, a high order of beauty is frequently to be found in those wonderful specimens of human labour, which, in the form of life-size figures and groups, supporting pulpits and decorating confessionals, constantly arrest the spectator's attention in the churches of St. Gudule at Brussels, St. Bavon

THE MASSACRE OF THE INNOCENTS.

and St. Pierre at Ghent, St. Paul at Antwerp, and many others in Belgium. It is truly a matter of regret, that those artists, who carried the manipulation of wood-carving to a higher pitch of perfection than it has attained at any other time, or in any other country, should not have been gifted with happier conceptions, and should not have lived in a period when a purer taste was indispensable to success.

In many of the cities in which the extraordinary works referred to have become objects of traditional veneration, a desire has of late years arisen, for their repair and revival. To supply this necessity, the brothers GEERTS, of Antwerp, have laboured most successfully. Accommodating themselves, in their designs and restorations, to the spirit of the spot in which their productions were to be placed, and uniting originality of conception with a graceful selection of harmonious details, they have been enabled to restore with singular success many of the ancient glories of ecclesiastical wood-work in the principal cities of Belgium.

In their most important undertaking, the execution of the new stalls of the cathedral at Antwerp, the Messrs. Geerts appear to have selected for their model the beautiful carvings of the stalls in the church of St. Gertrude at Louvain. Imitating those fine productions of the middle of the seventeenth century, more particularly in the small detached groups which surmount various portions of the design, they have succeeded in imparting to their elaborate work a freedom and beauty entirely their own. While the architectural details of the canopies are in a pure Gothic style, the multitude of subjects with which the stalls are enriched are devoid of any affectation of antiquated drawing.*

Surrounding themselves in their studio with casts from the works of the great masters we have mentioned, together with beautiful models of the architecture of the middle ages, the Messrs. Geerts have formed a large *atelier*, from which productions of extreme beauty are constantly proceeding. Among the important works upon which they are now engaged may be mentioned a series of 260 statues in stone, to be placed in the niches of the Hôtel de Ville at Louvain; and 29 panels, to be cast in bronze, for the new church of St. Joseph at Brussels. The latter are in the style of Lorenzo Ghiberti, and are expected to rival the works of that artist in the baptistery at Florence.

As illustrations, not only of the beautiful composition and artistic feeling which pervade the works of the brothers Geerts, but of the delicate handling and execution of their carvings, no specimens could have been more happily selected than those which they have contributed to the Great Exhibition. In the episode from "The Massacre of the Innocents," it would be difficult to imagine a more successful treatment of a devotional subject, since it combines much of the religious feeling of the early Italian school, with a comparatively pure, though slightly conventional style of drawing.

* The stalls referred to, both of Louvain and Antwerp, as well as many of the elaborate works of the old Flemish carvers, are delineated with great pictorial effect in Mr. Haghe's "Sketches in Belgium."



H. N. HUMPHREYS, DEL.

M. DIDBY, WYATT, DIGNT.

E. BEDFORD, LITH.

SPECIMENS OF TURKISH EMBROIDERY.

LONDON, PRINTED AND PUBLISHED, NOV. 10. 1851. BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

SPECIMENS OF TURKISH EMBROIDERY.

ALTHOUGH the Turks have hitherto manifested no distinctive peculiarity of excellence, either in the design or manufacture of common fabrics,—allowing themselves to be supplied with such articles by the more active and energetic countries of Europe,—they nevertheless display a decided predilection for the results of indigenous labour, in those articles which are adapted for the use of the more wealthy and luxurious among their population. While common cotton goods and coarse muslins are supplied from England and Switzerland, and cotton prints, shawls, and needlework of an ordinary description, from France, the natives of Turkey, in which country so much of the excellence of ancient Moorish art still remains, devote great labour and ingenuity to the production of gorgeous silk stuffs and luxurious embroideries. The same amount of perfection manifested in those exquisite dyes and processes of dressing which have made the Turkey morocco leather, and the red cottons of Adrianople, celebrated throughout Europe, is bestowed also upon the embellishment of the more elaborate articles of national costume.

The cotton of Turkey is not in any respect equal to that of India; and whether it be owing to the imperfect apparatus or labour employed in cleaning it, or to some inherent defect in its nature, certain it is that the finer fabrics, which serve, in Turkey, as a groundwork for the richest decorations of the needle, are for the most part produced by the looms of Persia and India. The muslin girdles and turbans, as well as the veils of the women, and those scarfs known as *macramas*, with which the Greek ladies are wont to cover the upper portion of the bosom when they have occasion to make visits, are almost entirely formed of fabrics the production of the last-named continent. The principal dépôt for these is at Smyrna, and at Constantinople they find a market amounting, together with that of other Indian cottons, to scarcely less than from eight to ten millions of piastres annually.

The silk goods of Turkey, which, as well as muslins, furnish the groundwork for costly embroideries, are principally produced in the neighbourhood of Brousa, in Asia Minor; a city which of late years has acquired considerable importance as the chief dépôt for the raw silk produced in the Turkish dominions. Very little embroidery is actually executed at Brousa; the silk which is forwarded from that city to Constantinople being generally consigned in the form either of twist or manufactured into plain fabrics. At Constantinople silks as well as muslins are provided by the merchants to the principal hareems throughout the city. The females, whose lives would otherwise be inconceivably monotonous, devote many hours daily to the decoration of the superb costume of the wealthier inhabitants. Thus it is we find that many of the articles in which feminine taste and skill are conspicuously displayed, bear tickets indicating that they are the productions either of the wives, daughters, or widows, of inhabitants of the metropolis. The beautiful manner in which it has been found possible, in a material so exquisitely delicate as the finest muslin, to draw home the threads which form the embroidered pattern, without distorting the regularity of the fabric, is truly remarkable. The elegance of the patterns, and the richness and harmony of the colours in which they are worked, convey a highly favourable idea of the national taste of the population. Whilst in Indian, in Greek, and in Russian embroidery, the forms partake of a highly geometrical character, it is a peculiar feature in Turkish designs that they incline rather to that style of pattern which in England is called *trailing*; that is, one in which the shoots and irregular springings of nature are imitated, with but little modification.

SPECIMENS OF TURKISH EMBROIDERY.

The goods which are thus produced by the labour of the females of Constantinople find a very considerable market at the celebrated fair of Balu-Khissar, a town situated about eighty-five miles north-east of Smyrna. This fair, which is one of the most considerable in the East, commences on the fifteenth of August, and lasts fourteen days. Long trains of camels and mules arrive from all parts of Asia, and more than 25,000 individuals are concentrated in the town and its environs. The bazaars are divided into sections, in which the nations not only of the East, but of Europe, find active commercial representatives. It is estimated that business amounting to twenty millions of piastres is annually transacted at this fair.

Some of the richest embroidered muslins in Turkey are manufactured for turbans—which are then called *abame*—and also for the handkerchiefs in which the ladies envelope their rich tresses after they have been disarranged in the bath, and previous to their receiving their usual elaborate plaiting and dressing.

The two central specimens engraved in the accompanying plate are executed on fine muslin: the top and bottom patterns exhibit the labour frequently lavished upon the enrichment of a material scarcely more delicate than the ordinary towelling of this country.



GROUP OF VASES BY
 F. THOMAS OF ST. LOUIS, MO.

THE UNIVERSITY OF CHICAGO PRESS, CHICAGO, ILL.

VASE AND OTHER OBJECTS,

BY MINTON OF STOKE-UPON-TRENT.

THE elegant vase which forms the centre and most conspicuous object in this plate exhibits a highly successful revival of that species of ware best known as Majolica. It may not be without interest if we offer a few remarks upon the history of that variety of porcelain manufacture, since we have every reason to believe that this first attempt of Mr. Minton's is likely to be followed by many other specimens of a similar nature.

Whether Italy first derived a knowledge of the manufacture of Majolica ware from Majorca, from the Greeks, or from the Sicilian Moors, or whether that knowledge grew out of the refinements applied by Luca della Robbia, at the beginning of the fifteenth century, to processes used at a much earlier period, it is now almost impossible to determine. The ordinary earthenware of Tuscany and Umbria was during the fourteenth century usually coated over with an opaque white clay, obtained from the province of Sienna, and generally known as *terra di San Giovanni*. The vase, thus covered, was sufficiently fired to reduce this external coating to a state of biscuit, which was then susceptible of being floated over with a species of glaze, with which any variety of colour might be mixed. On being finally baked, the varnish and the colour became vitrified, and perfectly unchangeable. By painting on the white coating in enamel colours, and covering them with a transparent glaze, any variety of pattern could be produced; and this latter modification of the process afforded the basis upon which all the subsequent earthenware of Italy was manufactured.

The main improvement in fabrication introduced by Luca della Robbia, consisted in the substitution for the old, clumsy, clay veneer, of a thin, opaque glaze, composed of tin and sand, with a small admixture of antimony and other metallic substances.*

At the beginning of the sixteenth century we find traces of an extensive trade in vessels of the kind referred to, in many of the towns of Italy, and more particularly in the Duchy of Urbino. In Bologna, Gubbio, Perugia, Rimini, Sienna, Spello, Civita-Castellana, Ferrara, Forli, Asciano, &c., a very considerable manufacture was carried on. The last-mentioned town is regarded by Passeri† as that in which the earliest evidences of any general system of production are to be met with.

We find that in 1509 a patent was granted by Guid' Ubaldo della Rovere, duke of Urbino, to Giacomo Lanfranco, of Pesaro, for the application of gold to earthenware. It was, however, some years later that, in the small town of Gubbio, Maestro Giorgio Andreoli originated a series of processes, which added materially to the reputation for ingenuity in ceramic production of which Italy was then commencing the acquisition. The works of this artist, which are well known to connoisseurs, are usually inscribed on the back with the monogram "M^o. G^o." Their chief peculiarity is that of a very simple body, covered with tin enamel, and floated over with a white glaze, on which, in free colours, the artist painted a design, the draperies of which glow with a brilliant ruby colour, the secret of the preparation of that pigment being known only to himself. On the completion of the painting, the whole was frequently covered with a strong colourless glaze, almost identical in appearance with that forming the

* Vasari, "Vita dei Pittori—Vita di Luca della Robbia."

† "Istoria delle Pitture in Majolica." Pesaro, 1838.

surface of the celebrated terra-cottas of Luca and Agostino della Robbia. The art of thus decorating porcelain was subsequently practised at Gubbio by Vincenzo, the son of Maestro Giorgio, who carried to a yet higher perfection the processes known to his father.

Between 1520 and 1560 these wares attained their greatest degree of popularity. The choicest designs of Raffaele and Julio Romano being at that time spread abroad throughout Italy, by means of the engravings of Marc Antonio and other masters, were soon transferred as subjects of decoration to the surfaces of the dishes, vases, cisterns, goblets, salt-cellars, &c., with which the tables of the Italian nobility were abundantly supplied. Over the forms and decorations of these objects the invention and refined taste of Timoteo della Vite, one of Raffaele's favourite pupils, are recorded to have exerted a happy influence.

In the earlier examples of this art the colours are usually extremely vivid. In the later specimens the white ground forms the field upon which arabesques and figures, outlined and shaded in yellowish or brownish tints, and heightened only with faint colouring, are executed. In some late works of Majolica, or, as it is often termed, Faienza ware, relief is added to assist the developement of ornamental objects; and it was at Pesaro, between 1540 and 1560, that artists named Geronimo and Matteo produced a number of large chargers decorated in this manner. Several artists of talent and remarkable facility contributed to the enrichment of these objects. Batista Franco, Taddeo Zuccaro, Raffaele Ciarla, Raffaele dell Colle, Flaminio, and Orazio Fontana of Urbino, were among the principal of this brotherhood, and assisted in the execution of the celebrated services which their patron, the reigning Duke of Urbino, presented to several of the principal sovereigns of Europe. Upon the decline of the Duchy the purity of taste in these manufactures appears to have rapidly decayed; and it is scarcely possible to find a tolerable specimen of this kind of workmanship of later date than the year 1600.

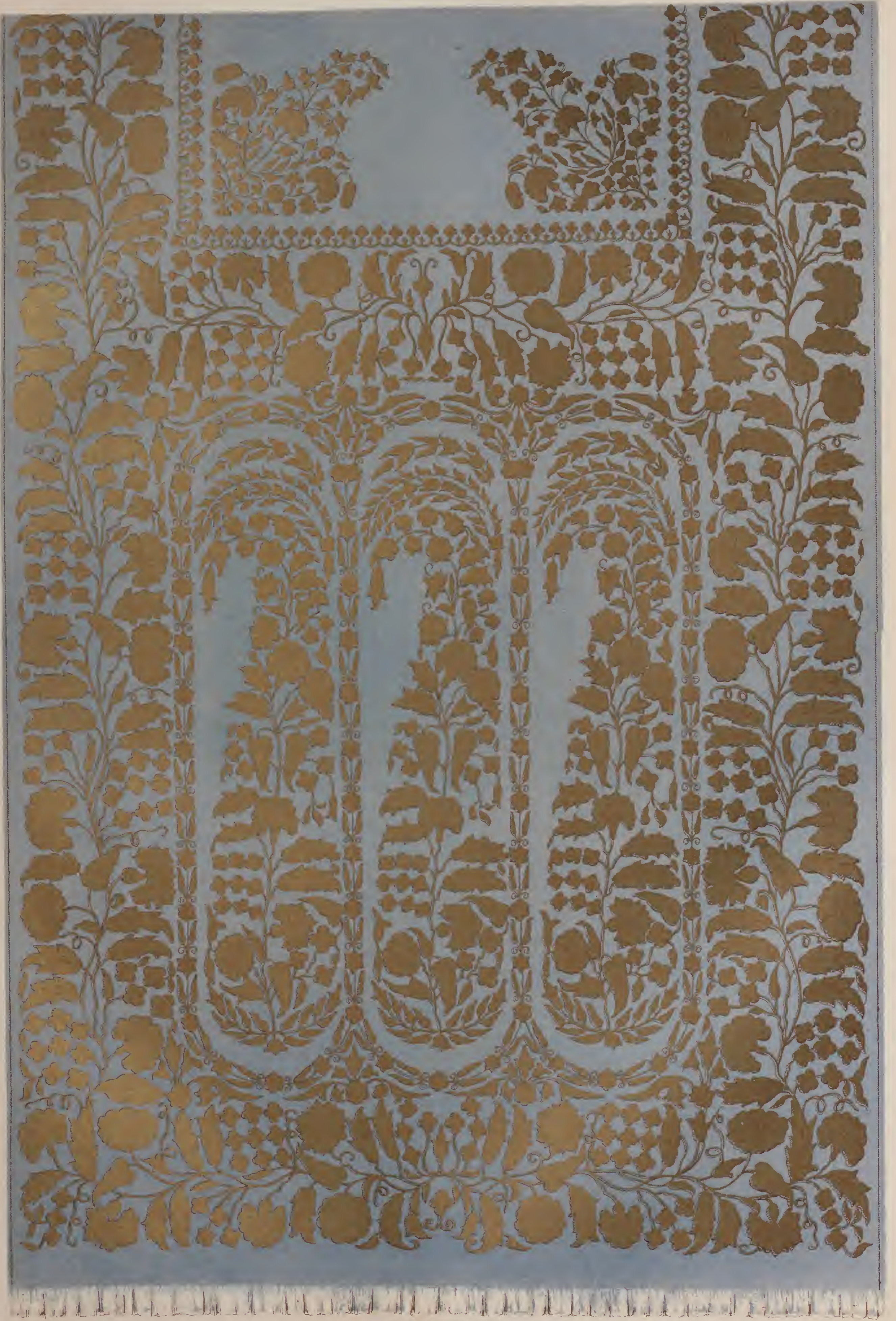
As the limits of our article will not allow us to go into greater detail on the practical manufacturing peculiarities of this interesting art, we must refer the reader for such information to the intelligent observations of M. Brongniart.*

So free and original is Mr. Minton's version of Majolica ware, that we can scarcely refuse to it the merit of great novelty. Both in modelling and execution, it is a very favourable specimen of the productions of his celebrated manufactory, which was founded about sixty years ago by the father of its present proprietor.

The attention of Mr. Minton was directed to the revival of the art of Majolica, from the circumstance of his having become the possessor of some specimens of that ware formerly in the possession of the Duke of Buckingham. He was, however, for some time, at a loss for a satisfactory model upon which to make an experiment. In 1849, two prizes were offered at the School of Design in the Potteries, by Smith Child, Esq., now M.P. for the Northern Division of Staffordshire, for the best and second-best designs for a wine-cooler in the old Majolica style. Among the competitors was Mr. Simou Birks, a young man who has recently completed his apprenticeship with Messrs. Minton and Co., and who had been a diligent pupil in the School from the time of its foundation. The model for the vase we have now illustrated was furnished by him, and for it he received one of the prizes offered by Mr. Child. The colouring of the vase has been somewhat modified by other artists, under Mr. Minton's direction.

The remaining objects introduced in the plate form portions of the exquisite dessert service which has been purchased by Her Majesty (at a cost of one thousand guineas) for presentation to the Emperor of Austria. As it is our intention to engrave hereafter some of the principal features of this splendid service, we shall at present only notice the highly successful combination of form and colour which characterises the specimens engraved.

* "Traité des Arts Céramiques."



P. DELAMOTTE DEL.

M. DIBB & SONS

F. BEECHER & CO. LTD.

SPECIMEN OF INDIAN EMBROIDERY.

LONDON PRINTED AND PUBLISHED NOV. 17 1851, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

SPECIMEN OF INDIAN EMBROIDERY,

FROM DACCA.

THE system of division of labour, which modern political economists have demonstrated to be the only mode of successful production in the countries of Europe, has in India been known and practised from a very remote period. There can be little doubt that, while the institution of *castes* in that country originally sprang from political and social considerations, whoever framed the laws which regulate those minute distinctions in society must have had some perception of the effect which such a grouping of the various classes of the population would necessarily produce upon the arts of the country. All those admirable results which the guilds and corporations of the middle ages produced upon specific arts and manufactures, are constantly effected in the present day in the productions of India by the distinctions of caste in that interesting country. The man who from his birth is destined to be a shawl-maker, a goldsmith, or a muslin-weaver, has, from his earliest years, every faculty of his mind and every physical quality of his constitution, concentrated upon the one pursuit, excellence in which is to be at once the standard of his social position, and his security for obtaining the necessaries and comforts of life.

Thus it is that the hands of the Hindoos have acquired that marvellous sensibility of touch, which alone enables thread, of a tenuity scarcely equalled by that of Lisle, Brussels, or Mechlin, to be spun by their delicate fingers. Thus it is that the designers of shawls and embroidery have learnt, from their earliest infancy, the forms and tints of those patterns which have descended from generation to generation in the families of their caste. This peculiar social combination necessarily affords them an opportunity for refining on the works of their predecessors; and to the exercise of a consequent power of minute criticism we may readily trace that extraordinary elegance, and perfect balance of forms and hues, which to the civilised nations of Europe appear altogether incompatible with the works of a people reared in a condition which is commonly regarded as approximating to barbarism.

Many authorities might be adduced from classic authors to show the early acquaintance of the natives of India with the weaving, dyeing, and printing of cotton goods; and it is to the imitation of fabrics of a very remote date, that England is indebted for one of the most important branches of its national manufactures.

Fine woollen stuffs, somewhat resembling the best products of Norwich, are largely manufactured in the north of India, and brought by the merchants to the important trading city of Delhi, from whence they are carried down as low as Dacca, and even to Calcutta.

The enrichment by embroidery of these plain stuffs,—which are generally of a rich red, blue, green, or black colour,—is extensively carried on, both in Delhi and in Dacca; and gives employment to a great number of skilful workmen. There is a marked difference between the embroidery of these two cities, both in the quality of the silk thread and in the length of the stitches. In that of Delhi the stitches are short and cleanly worked, in a style somewhat resembling the Chinese embroidery, the silk thread being closely and neatly spun. In that of Dacca, on the contrary, the stitches are long, and the silk employed is of a more flossy character, excepting in those instances in which a special commission effects an alteration in the

general character of the work. As may naturally be inferred, the embroideries of Delhi are more highly esteemed by the natives, and are consequently more expensive, than those of Dacca. The latter city is, however, famous for its embroideries of net and muslin, which are, perhaps, better known to Europeans than any other variety of Indian workmanship in this department of industry; and in the specimen which forms the subject of our illustration, the native workman has executed, in gold thread and flattened wire, upon a piece of fine Cashmere stuff, a very elaborate pattern, the design of which must be gratifying to all who can appreciate the ingenuity of the artist in adjusting so skilfully the relative quantities of pattern and ground, and the harmonious combination of the various lines and ornaments.

The manufacture of the gold thread, in which this species of embroidery is executed, is largely carried on at Boorhampore. A description of the process employed in that district has been furnished to the "Illustrated Catalogue" of the Great Exhibition, by R. N. Hamilton, Esq., the British Resident at Indore; and the scattered notices in Mr. Montgomery Martin's "Eastern India," give us reason to believe that the same process is adopted throughout that portion of the peninsula. The operation is described as follows:—Four common bricks are laid on an earthen floor, and a layer of charcoal is placed at the bottom. Upon these a clay crucible containing a quantity of silver is deposited, and being covered over entirely with ignited charcoal, the fire is fanned by a hand-*punkah* (a piece of matting about four inches by nine), to increase the heat; additional charcoal being occasionally added in small quantities. In somewhat less than an hour the silver melts, and is run into moulds, by means of which it takes the form of small rods. A sheet of gold is then well washed, and boiled in fresh lime-juice and water. Whilst it is still warm, it is rolled completely round the rods we have described; and the process of plating the silver with gold is thus completed. The next operation is that of drawing the rods through perforated steel plates, in a manner similar to that practised in English wire-drawing; and thus gradually lengthening them until they have obtained the requisite tenuity of wire. To receive still further compression, they are passed between small rollers, and flattened on an anvil by the blows of a hammer, until at length they assume the form of exceedingly minute ribbons. A thread of silk is then suspended with a spindle at the end, a corresponding spindle is attached to one of these golden ribbons, and the spinner who sets both in motion so regulates the contact of one with the other, as to cause the gold to completely cover the whole of the silk thread. Thus prepared, it is done up in skeins, and sold to the embroiderers.

As we contemplate engraving in subsequent plates specimens somewhat analogous to that now under examination, we purpose, in our notes upon them, to analyse briefly the principles which regulate the excellence of patterns similar to that given in the present illustration.



J. WALLFIELD DEL.

W. GIBBY WYATT. LITER.

F. BELFORD. LITH.

A GROUP IN BRONZE BY VITTOZ, OF PARIS

LONDON, PRINTED AND PUBLISHED NOVEMBER 1851, BY DAY & SON, ST. DUNSTON'S, TO THE QUEEN.

O B J E C T S I N B R O N Z E,

BY VITTOZ OF PARIS.

THAT the art of casting in bronze was known at an early period in France, is testified by the execution of the bronze doors which the celebrated Suger caused to be made for the Cathedral of Notre Dame; and by the magnificent tombs of Evrard de Fouilloy, who died in 1223, and of Geoffrey d'Eu, who died in 1273, both Bishops of Amiens; as also by that of John, son of St. Louis.

Although bronze was extensively used in the twelfth and thirteenth centuries, an examination of the principal relics of mediæval art leads to the conclusion that it did not acquire any great degree of popularity in France, either in the fourteenth or fifteenth centuries. The impetus given to the art of bronze-working in Italy by the labours of Ghiberti, Donatello, Verrocchio, Pollaiuolo, and others, served as the foundation for that perfection to which the processes of manipulation were carried by Benvenuto Cellini. The first works in bronze, introducing the Renaissance style into France, were executed by that great artist, at the court of Francis the First; and there is every reason to believe that his bas-relief of Diana, which was designed to decorate the celebrated Château of Fontainebleau, was the model from which Germain Pilon, Pierre l'Escot, and others, derived those inspirations which led to the creation of the afterwards famous school of French bronze-casting.

Few artists of eminence, or important works, are to be traced during the seventeenth century, but we can scarcely believe the old traditions to have altogether passed away; since the *salons* of the Quartier St. Germain are still decorated by numerous small objects in old red bronze, such as groups of boys in the style of Fiamingo, nymphs, &c., which can only be attributed to the latter part of this period.

Whilst the exquisite statuette modelling and high finish in chasing of Clodion and Girardon have caused the names of those artists to be venerated by all collectors of objects of *vertù* at the present time, they contributed no less, in the prosperous days of the old *régime*, to the perfection of those groups which were so highly prized by the *ancienne noblesse*.

The disastrous tide of misfortune which swept over those aristocratic patrons of the art could hardly fail to change the character of the art itself. It is not surprising, therefore, that under the new constitution the Florentine traditions of Girardon, and the Arcadian graces of Clodion, should have been transformed into the conventional imitations of antiquity with which the fertile brains and ready pencils of Percier and La Fontaine ministered to the *parvenu* grandeur of the Chaussée d'Antin.

The great works of ancient art of which Italy was despoiled were transported to Paris, and no doubt contributed to the fashion which set in of decorating the apartments of the citizens with objects as would-be classic as the Christian names, but at the same time as essentially French as the nature, of the *bourgeoisie*, their proprietors.

The house which earliest distinguished itself in ministering to this craving for the reproduction of antique bronzes was that of M. Thomire. Founded in 1793, this establishment continued for many years to exercise a powerful influence on the progress of the art. In the Exposition of 1806 it obtained the gold medal, and has ever since maintained its early reputation. M. Denière's establishment may be regarded as the principal rival of this great house. Their competition reached its climax in 1827. Whilst, in the Exposition of that date, M. Thomire displayed a grand service executed by him for the town of Paris, consisting of seventeen groups

OBJECTS IN BRONZE.

of allegorical figures, admirably chased, representing the union of Peace, Commerce, and Industry, M. Denière contributed an exquisite work representing Parnassus, surmounted by the Muses, and supported by a group of Chimeras.

These great masters of the art were not, however, without competitors; for, at the period last mentioned, the founding, chasing, gilding, and silvering of bronzes, gave occupation to 105 separate establishments in Paris, employing not less than 840 workmen. The total value of the productions emanating from these manufactories in every year amounted to 5,250,000 francs, of which more than one-third were destined for exportation.

Many of the most beautiful statues of antiquity, and of the *cinque cento* period, have been reproduced with extreme truth and delicacy, by the adoption of the important processes of reduction introduced by M. Collas; and these works have materially contributed to improve the public taste. The perfection to which this system has been brought is admirably illustrated by the beautiful series of bronzes contributed to the Great Exhibition by M. Collas, in conjunction with M. Barbedienne.

In examining any large series of French bronzes, it is especially gratifying to notice how completely the great artists of the present age have ministered to the requirements of manufacturing enterprise. M. Vittoz, who has produced the clever group which forms the subject of our illustration, displayed in the Great Exhibition works modelled by Coustou, Clodion, Oudou, Pradier, Feuchère, Pascal, Combervatt, Combett, Claymmans, and other celebrated sculptors.

Thus aided by the genius of the artist, the manufacturer in bronze is enabled to carry to perfection the inspirations of the former; but in doing so he is materially aided by the accomplished workman, whose refined skill in the manipulation of chasing places him almost upon a level with the sculptor.

The bronze trade in France is divided, theoretically, into three distinct sections:—the first consisting of founders, by whom colossal statues and objects of large dimensions are executed; the second, of those by whom *bronzes d'art* are produced; and the third, of those by whose labour articles of furniture, such as lamps, clocks, &c., are provided. In the first of these classes, the most prominent houses are that of Eck and Durand, by whom the immense bronze doors of the Madeleine were cast, and that of Soyer, Inge, and Son, who cast in a single jet the celebrated capital of the Column of July, the weight of which exceeds 10,000 killogrammes. In the second class, MM. Vittoz, Charpentier, Susse, Pailliard, and Matifat, occupy a distinguished position. Most of these houses contribute more or less to each of the three departments; and there are so many eminent manufacturers engaged in the third exclusively, that it would be invidious to mention any of them in particular.

The cup, which occupies the foreground of our illustration, has been cast after an antique model found at Pompeii. The group of boys, the chasing of which displays the highest delicacy of finish, is one of the most admirable compositions of M. Feuchère, and is worthy to serve as a model for the handling of this material.

As we must return to the subject of bronze-work in observations on subsequent illustrations, we shall reserve for the present our notices of processes, colouring, &c.



Museo di Napoli

Vase de la collection de M. de Cayrol

TABLEAU DE LA VASE DE LA COLLECTION DE M. DE CAYROL
 (MUSEO DI NAPOLI) - (MUSEO DI NAPOLI)

VASE "LA GLOIRE,"

FROM THE ROYAL MANUFACTORY AT SÈVRES.

THE outline of the graceful vase which forms the subject of our present illustration, has been derived from one of those specimens of the art of Magna Grecia, the perfection of which has obtained great and universal celebrity for that department of the Museum of the Studij at Naples which is devoted to their preservation. The application, however, of colour and subject to the decoration of this beautiful example, is perfectly original, and due to the tasteful fancy of M. Hamon. The skill with which this accomplished artist has deviated from the antique, just to a sufficient extent to attain freshness and a peculiar delicacy of effect, without in any way losing the purity of the source whence his inspiration has been drawn, reflects the highest credit upon him. Each of the conventional ornaments introduced is perfectly adapted to that particular portion of the contour which it is employed to decorate; and in this respect the design merits the attention and emulation of those students who are wont to lavish the charms of ornament, without regard either to propriety of subject or fitness of application.

In subsequent plates it is our intention to engrave other specimens of the beautiful productions of the Royal Manufactory of Sèvres; and we therefore propose to divide the few remarks we shall offer upon the history of this, the most celebrated industrial institution of France, into a consecutive series of notices. On the present occasion we shall confine our observations to the circumstances under which that kind of porcelain generally known as OLD SÈVRES was produced.

In the year 1710, the attention of the chemists and manufacturers of France was excited by the prosperity and fame with which the successful experiments of Böttcher had crowned the Electoral Manufactory of Porcelain at Meissen, in Saxony. Attempts were consequently made to rival the imitations of Oriental China with which Saxony then ministered to the wants of aristocratic collectors; and as the natural materials which had been discovered by Jean Schorr, of Schneeberg, near Dresden, were wanting in France, efforts were made to attain, by a combination of various substances, those results which the union of kaolin, or china-clay, and feldspar, had already produced in Saxony. These experiments resulted in the production of a new composition, which is usually known as *pâte-tendre*, or OLD SÈVRES, in contradistinction to the *pâte-dure*, discovered at a later period.

The first manufactory of the former description of china was established at St. Cloud near Paris, by a M. Morin, and was conducted in 1718 under the direction of M. Chicoineau. Some of the workmen who had been brought up at this factory subsequently started on their own account at Chantilly, and in the year 1740 proposed to the Marquis d'Orry, then Minister of Finance, to reveal to him the secret of the composition of their porcelain. Neither the amount of their knowledge nor the specimens they produced were, however, sufficiently favourable to induce the Minister to become the purchaser of their secret; nor were they able to maintain for any length of time the proprietorship of their establishment at Chantilly. They were succeeded by M. Gravant, a man of superior ability to his predecessors, and it was from him that the same Minister purchased the secret in the year 1745.

A company was immediately formed at Vincennes for carrying out the processes thus acquired; and it subsequently obtained a monopoly for thirty years. Louis XV., who had displayed much interest in the success

of the scheme, became possessed, in 1753, of a share in the concern, amounting to one-third; and conferred on the establishment the title of the Royal Manufactory. We learn from M. Jules Labarte,* that in the ensuing year the manufactory had arrived at so high a degree of perfection that the workshops at Vincennes were found to be too limited in their extent for the efficient conduct of the works; and it therefore became necessary to transfer the operations to Sèvres, where a vast edifice had been constructed expressly for the purpose. In 1760 the King paid off his associates in the undertaking, and became sole proprietor of the manufactory, to which he accorded a capital of nearly 100,000 livres.

The composition of the "body" by means of which the beautiful and now most costly specimens of the old *pâte-tendre* were produced, owed much of its perfection to the skill of the chemists, Macquer and Du Lauraguis. According to the opinion of M. Brongniart, more research, and more talent, have been required to compose this artificial porcelain, by complicated and delicate means, than were necessary to obtain a successful result in the hard porcelain, or *pâte-dure*, which results from the simple mixture of two natural substances, kaolin and feldspar. M. Dupin† remarks, that the base of the former description of porcelain consists of powdered nitre, sea-salt, alum, soda, gypsum, and sand, mixed together, and reduced to a fritt in the furnace, and subsequently combined with stone and chalk. The covering, which constitutes the glaze, is composed of litharge, silice, and carbonates of potassium and soda, repeatedly combined, reduced to powder, and recombined. M. Brongniart's work‡ contains scientific formulæ for the exact proportion of these various ingredients.

In this material were executed the majority of those charming vases, cafetières, déjeûners, cups, saucers, dishes, &c., which graced the boudoirs of the petits-maîtres and dames de qualité of the court of Louis XV.; and the King himself, as well as his favourite mistresses, set such an example as greatly increased the popularity of the objects produced at the Royal Manufactory.

In reference to the colours of this beautiful species of china, it may be observed, that the Vincennes blue, so well known to collectors, is an exceedingly deep rich tint, almost approaching to a black, and that M. Gouttiere and many of the most exquisite chasers of the period excelled in mounting, in or-moulu, objects so coloured. The Rose Dubarry was a very tender pink colour, manufactured expressly for the lady whose name it bears. The celebrated turquoise blue, and the pale green, which are both much prized by connoisseurs, attained, in Old Sèvres, a degree of perfection and delicacy which, though often imitated, has even to the present day remained unsurpassed.

At first the range of ornament applied to the decoration of these objects extended little beyond interlacing lines of ribbons, and small bouquets of flowers. Subsequently, figures of Cupids, shepherds and shepherdesses, birds, sheep and other animals, were added. M. Labarte enumerates the principal artists who, either as modellers or painters, were attached to this establishment, from the time of its elevation into a Royal Manufactory. He states, that at first the artistic direction of the works was entrusted to Falconnèt and Bachelier; and subsequently to Bozot, Langrenee, and Corneille Van Spaendonck. Among the artists who distinguished themselves during the reigns of Louis XV. and XVI. may be mentioned Mérault, Bouillat, Parpette, Micaud, Pithou the younger, Niquet, and Sioux, for flower-painting; Armand and Castel for birds; Chulot and Laroche for arabesques; Rosset and Evans for landscapes; Dodin, Caton, Asselin, and Pithou the elder, for figures, portraits, and other subjects. The little statuettes modelled by Falconnèt have now become exceedingly valuable.

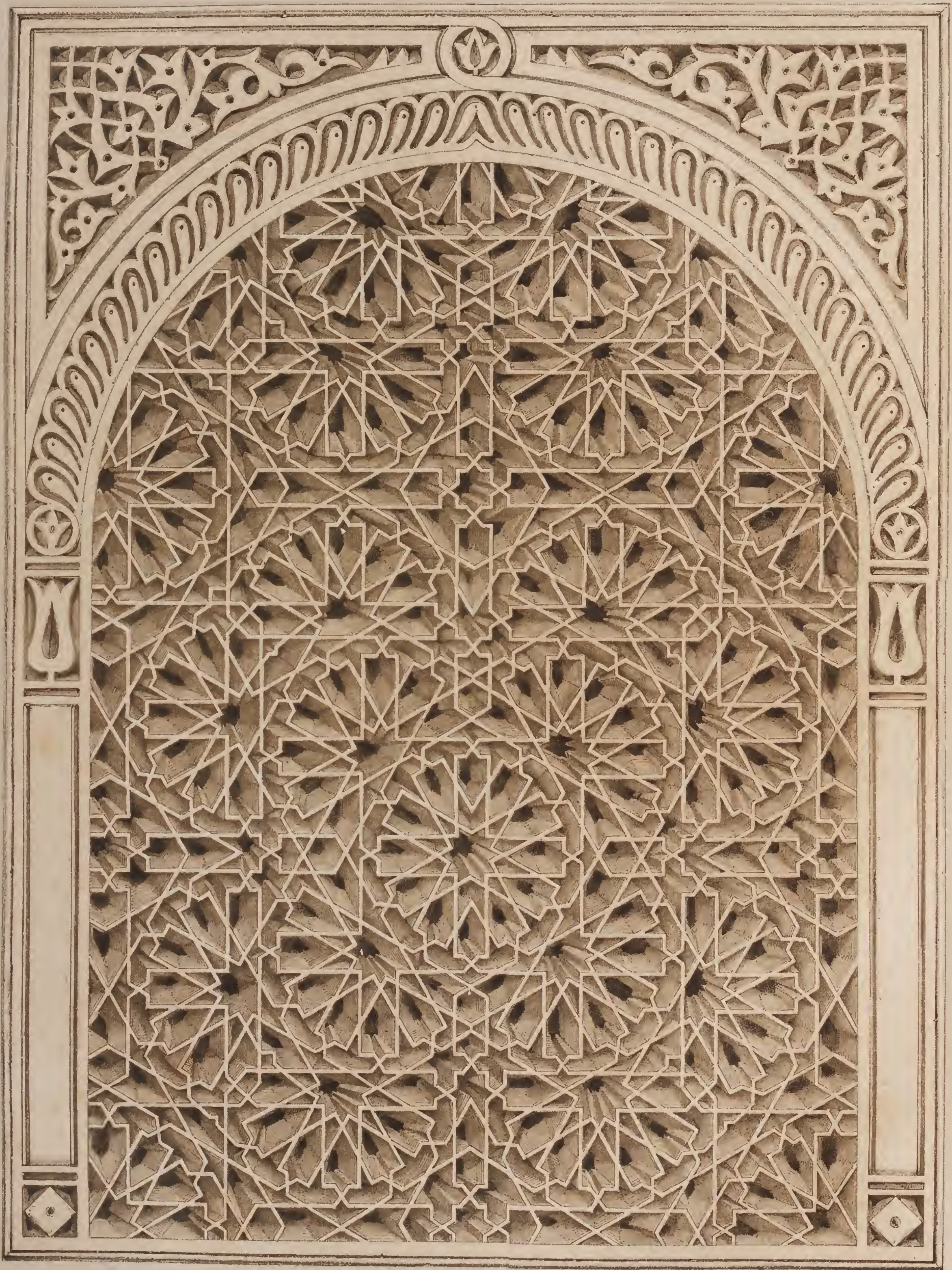
It is by no means difficult to ascertain the dates of the objects executed during the earlier periods of the manufactory of Sèvres. From the year 1753 to 1792, the different objects produced were almost invariably marked by a monogram or cipher, consisting of two L's, interlaced and formed in blue lines; the year in which the object was executed being indicated by a letter placed in the space formed by the intersection of the L's. Thus, the letter A, so introduced, indicates the year 1753; the letter B, the year 1754; and so on down to the year 1776, which is indicated by the letter Z. The productions of the succeeding year were marked by two A's; and the system of marking by double letters was continued in annual alphabetical order until the year 1793, which bears the mark of two R's. Many other marks were added, which serve to verify the different articles as having been decorated by particular artists; but we must again refer the reader to the works of Brongniart and Riocreux for minute details on this branch of the subject.

Having thus sketched, though necessarily very briefly, the circumstances under which the original *pâte-tendre* was executed in France, we shall, in our next notice of the manufactures of Sèvres, turn our attention to the *pâte-dure*.

* "Description des Objets d'Art, qui composent la Collection Debruge Dumenil, par Jules Labarte." Paris, 1847.

† Introduction to the Report of the Central Jury on the Exposition of 1834.

‡ "Traité des Arts Céramiques."



WINDOW ORNAMENT FROM TUNIS

W I N D O W O R N A M E N T,

FROM TUNIS.

THE numerous portions of vases, &c., and the fragments of sheet-glass preserved in the Museum of the Studij at Naples, bear ample testimony to the fact that the ancients were in the habit of employing that material, not only for vessels, but also for those glazing purposes to which we now so largely apply it. It is, however, obvious, from the high prices which they are recorded to have given for glass, that it was by no means commonly used by them.

This interesting question, however, affects only in a minor degree the remarks we are about to make; for it is certain that whatever facilities the Roman artificers may have possessed in the manufacture of glass, the art fell into complete disuse, if, indeed, it was not absolutely lost in Italy, so soon as those calamities which ultimately destroyed the Roman Empire fell upon the Imperial government.

Hence, in the earlier ages of the Church, perforated marble slabs were used for the purpose of admitting light, and yet partially screening from observation, and obstructing surreptitious entry; so as, in fact, to supply the places of the windows of later construction. A remarkable instance of this peculiarity was discovered in the chapel attached to the Catacombs, in the Cemetery of San Calisto, near the Church of San Sebastiano, at Rome;* and there is every reason to believe that this example was by no means singular in the same locality.

In Byzantine architecture a like practice was adopted; and in the older portions of the churches at Ravenna, as well as in that of St. Mark at Venice, and St. Ambrose at Milan, there are numerous pierced slabs of marble, which have no doubt at one period served the purpose of admitting light and air. In the highly interesting Church of Sta. Fosca, in the Island of Torcello, near Venice, the use of semi-transparent slabs of alabaster, sufficiently thin to admit of the passage of a good deal of light, exhibits one of the earliest attempts to improve upon the former practice.

Perforated windows of a description similar to those we have indicated, as still to be traced at St. Mark's and at Ravenna and Milan, are among the most characteristic features of the edifices erected under the Saracenic rule, forming at once a pleasing and useful ornament to the interiors of those structures. If, therefore, as there is every reason to believe, the elements of Moorish architecture were based upon that of Byzantium, the source of these windows, so prevalent in the former species of architecture, may easily be traced in the existing remains of the latter.

If, on the other hand, as has been contended, Moorish architecture derived its chief elements from the traditions of India, transmitted by way of Persia, the probability of that opinion may be supported by the fact that, in both the latter countries, windows of this nature are to be found, even to the present day, in common use. Among the objects contributed to the Indian department of the Great Exhibition were two charming specimens of perforated stone-work, destined to be used as windows or screens; and from the sketches of various travellers in Persia, it is clear that objects of a similar nature are common throughout that country.†

In adopting the use of these primitive windows, the Moors were no doubt compelled, by a deficient supply

* Boldetti, "Osservazioni sopra i Cimiterij," vol. i. chap. 9, plate 2. D'Agincourt, "Histoire d'Art par ses Monumens," plate 13.

† See "Voyage en Perse, par Eugène Flandrin et Pascal Coste."

WINDOW ORNAMENT, FROM TUNIS.

of the materials in which their original models had been executed, to produce imitations of them in plaster. Among the earlier and more perfect specimens of this kind, we may cite the numerous examples which are to be met with in the mosques and tombs of the Caliphs at Cairo.*

The Moors continued the use of perforated plaster windows after the employment of glass was adopted, frequently covering the perforations with the latter material. The openings were generally arranged in a regular geometrical pattern, somewhat in the style shown in our present illustration, and various coloured glasses were attached on the external side, so as to form a regular mosaic pattern. A very graceful example of this effective mode of decoration may be observed at the Alhambra, in the windows looking from the Hall of the Boat into the Court of the Fishpond. Although the glass has been broken away from these windows, the original pattern may be ascertained with comparative certainty, by some recesses on the opposite side of the court, which were painted to correspond with them.†

Many refinements were introduced to enhance the effect produced by windows of this description. The perforations were, and even now are, invariably in an oblique direction, descending from the external face of the plaster, so as to transmit directly the full brilliancy of the light. The glass was fixed to the outside by means of plaster, worked to a face flush with the outer surface of the glass. The perforations generally spread inwardly in all directions from the external aperture, which is invariably kept of small dimensions, and by this arrangement the coloured light illumines with its tints the adjacent surfaces. This plan is adopted with a most happy effect in the specimen from which our plate has been taken; and we are assured that similar windows are common throughout the East.‡

A system of decoration somewhat analogous to this was frequently applied to obtain light through domes and other large vaulted surfaces, as may be found in some of the earliest specimens of Moorish art.§ In these examples the vault is usually perforated with a number of small openings, regularly distributed over the exterior, so as to admit of their being connected with lines, or fillets, which convert them into centres, around which are disposed various geometrical enrichments, frequently covering the whole exterior of the dome. Though small on the exterior, these holes enlarge as they pass through the thickness of the roof, frequently expanding on the interior surface, into the form of stars, hexagons, octagons, and foliated forms. The small pieces of coloured glass which cover the outer apertures admit sufficient light to brightly illuminate these foliated openings, and the internal effect of the cupola is thus most gracefully heightened. The same arrangement of geometrical lines and patterns that we have described on the exterior of the dome is employed also to connect the internal perforations. It is found in practice, that by bedding the pieces of glass (which may be of any irregular shape) in the plaster, the roof is kept perfectly water-tight.

A highly successful attempt to introduce the above system of decoration into this country was made about ten years ago by Mr. Owen Jones, to whose kindness we are indebted for several of the preceding remarks. In a mansion constructed from the designs of that gentleman in the Queen's Road, Kensington Gardens, he caused a vaulted skylight to be executed, which displays internally a most elaborate pattern, being covered on the outside with pieces of coloured glass of irregular shapes bedded in plaster in the manner already described. The application of two or three coats of paint to the exterior of this skylight has been sufficient to preserve it in a perfectly sound and water-tight condition up to the present time.

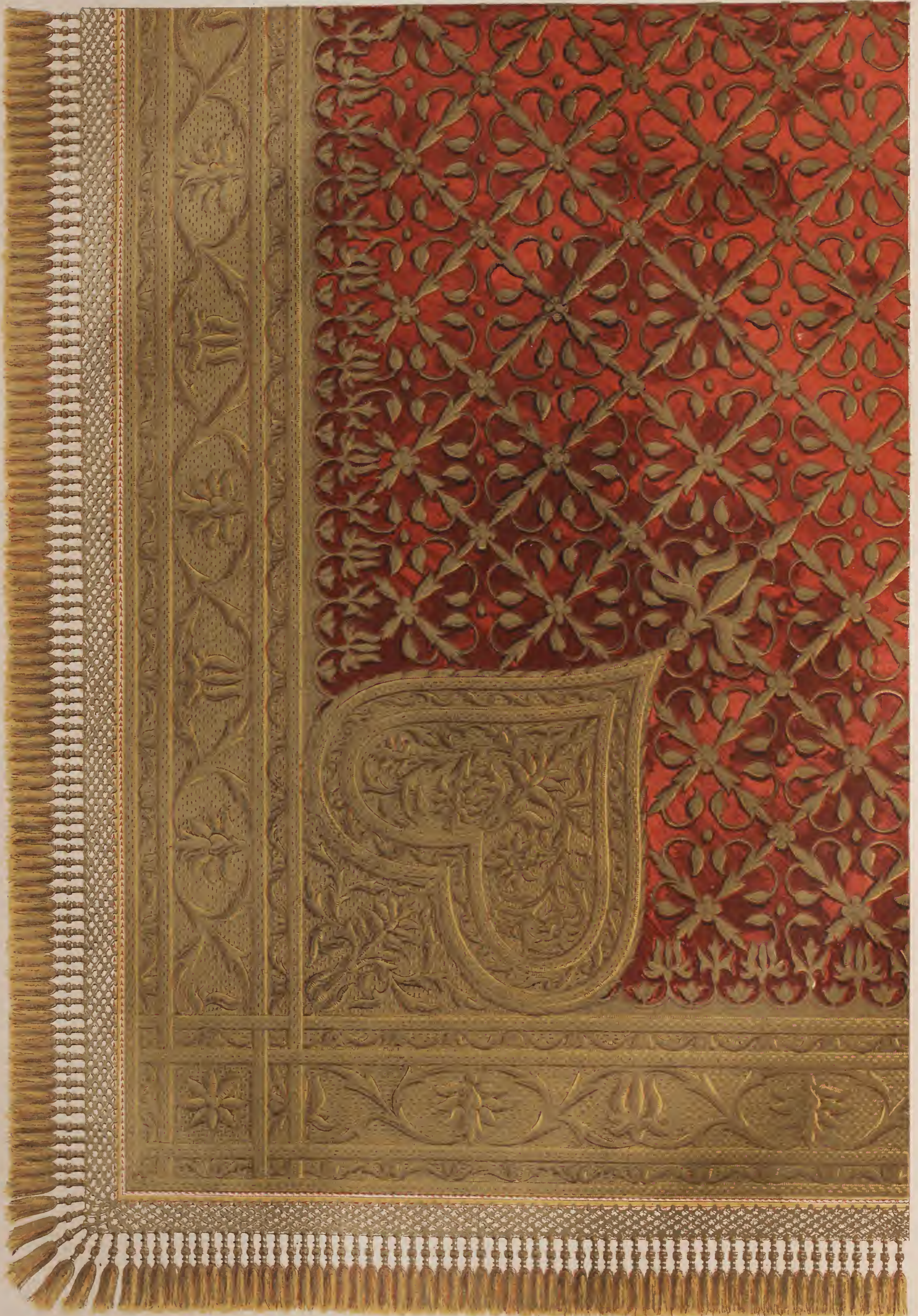
In our notice of Plate IV. we alluded to the singular preservation of the patterns of the most successful periods of Moorish art among the present inhabitants of the northern coast of Africa. It is, therefore, only necessary here to point out the exact similarity of style which is to be observed between the window from Tunis now selected for illustration (which is of a kind in daily use in the streets of that city), and numerous examples in the Alhambra and other monuments of Saracenic antiquity.

* See Coste, "Monumens Arabe du Kaire," and Hay's "Cairo."

† See "The Alhambra," by Owen Jones, vol. ii. plate 45; and "Drawings and Sketches of the Alhambra," by J. F. Lewis.

‡ See "The Oriental Album," by E. Prisse.

§ See "Essai sur l'Architecture des Arabes et des Mores en Espagne, en Sicile, et en Barbarie, par Girault de Prangey." Paris, 1841.



W. ALIESH DEL.

M. DIGBY NYATT DIXEY

F. BEDFORD LITH

INDIAN ELEPHANT TRAPPING.

LONDON, PRINTED AND PUBLISHED NOV. 15TH 1861 BY DAVY & SON LITHOGRAPHERS TO THE QUEEN.

INDIAN ELEPHANT TRAPPING.

THE gorgeous specimen of embroidery which forms the subject of this plate, conveys some faint idea of the florid style of ornament which decorates the beautiful offerings made by His Highness the Nawab Nazim of Moorshedabad to Her Majesty the Queen of England. It forms part of a splendid velvet covering, worked with gold and silver, descending from the lower part of the howdah, or small pavilion, which, borne upon the back of an elephant, serves to shelter its rider from the intense rays of a tropical sun.

A magnificent howdah of this description, carved in ivory, and completely fitted up for use, with all its accessories, together with a complete suit of elephant trapping, forms the principal portion of the present to which we have alluded. To this truly regal gift the Nawab has added a superb throne, or native reception seat, with its canopy, and a frame-work of silver, serving to support the pillows. Two mookals (emblems of rank), and two palanquins, one richly fitted up for state occasions, and the other without a canopy, complete the present. The style and character of these elaborate objects admirably illustrate the Oriental splendour with which the native princes make their visits of pomp, and their progresses of parade.

The state trappings of an elephant consist of a large cloth, which completely covers the body of the animal, and falls down to within a short distance of his feet. In the present instance this covering is of velvet, embroidered all over, in a style similar to that exhibited in the accompanying plate. Upon this cloth the howdah, or pavilion, is placed, the frame-work of which serves to support a canopy, beneath which the prince or noble takes his seat. Behind rises a distinct and less lofty canopy, which is occupied by an attendant, whose duty it is, with a plume of feathers, to whisk away the insects which buzz around, and, but for his interference, would much annoy his lord. The dexterity with which this duty is performed, is a theme of admiration to all who have witnessed it. In front of the howdah, astride upon the neck of the elephant, and furnished with a goad, by means of which he directs the movements of the animal, sits the driver. Over his head is stretched an awning, supported by two rods projecting from the lower part of the howdah. In front of the driver, and covering the head of the elephant, is spread another piece of cloth, embroidered even more richly than the rest of the trappings. On each side of the animal's ears, and almost concealing them, hang long cords of gold and silver twist. From each side of the howdah depends a gorgeous piece of embroidery, partially covering the great cloth already mentioned; and from one angle of this smaller or uppermost cloth our illustration is taken, serving but imperfectly to represent the extreme brilliancy of the original, the gold of which is highly burnished and of the greatest purity. The beauty of the patterns worked in bullion which enrich the velvet, and the woven silk, or kincob, which forms the covering of the howdah, is most remarkable; and, when lit up by the intense rays of an Eastern sun, we can imagine the whole panoply to present a gorgeous appearance, investing the movements of the unwieldy animal with as near an approximation to grace and dignity as its clumsy action will permit.

From the earliest periods, the elephants of India have been peculiarly identified with regal magnificence. When Alexander the Great first came in contact with them, and perceived their splendour in state and their utility in war, he determined upon introducing them into Greece. The experiment, however, proved unsuccessful, since the expense and difficulty of maintaining them offered an insuperable obstacle to his project. Introduced at a subsequent period into Italy, by the armies of Pyrrhus, however imposing their appearance, they proved an unequal match for the ingenuity of Hannibal and the valour of the Roman soldiers. Degraded from

INDIAN ELEPHANT TRAPPING.

their dignified and warlike position, they sunk into the occasional ornaments of Imperial triumphs, and ultimately, in the reign of Nero, mounted the stage in the public games, under the yet more equivocal guise of rope-dancers. In the middle ages, a celebrated elephant was presented by the Soldan of Babylon to the Emperor Frederick the Second; and King Henry the Third had also an elephant, which was publicly exhibited in England.*

The commercial intercourse which existed between India and Italy was not confined to the importation of elephants into the latter country; since Pliny tells us that, in his time, the Roman citizens devoted no less than fifty millions of sesterces annually (more than 400,000*l.*) in procuring for themselves the luxuries of the East. Among these we have reason to believe that silks and silk stuffs formed no inconsiderable item. It is not indeed impossible, that the splendid embroideries of India, thus made familiar in the West, contributed to that taste for elaborately decorated garments, which was transmitted to the rest of Europe from Byzantium; and may, even at the present moment, be exerting an influence over the productions of Muhlhausen and Manchester.

A peculiar interest attaches to any objects produced at Moorshedabad, on three accounts. In the first place, since that city, and its adjacent Port of Cossimbazar, are celebrated as the most important *foci* of the silk-trade in India; serving not only as the greatest depôt for raw silk, but as the principal manufacturing centre, from whence many of the most distant countries of the Peninsula are supplied with twist and made-up goods. The Cossimbazar Corahs are, indeed, largely imported into this country: most of what are known as "real India silk" pocket-handkerchiefs emanating from that district. In the second, because from 1704 to 1756, Moorshedabad was the capital of Bengal; and may, therefore, be regarded as serving to illustrate the most important native industry of that celebrated province; and, in the third place, because when Moorshed, in 1704, removed the seat of government from Dacca to his new metropolis, to which he gave his own name, he brought with him the most skilled artificers of Dacca, on the traditions of excellence descending from which all the art of that portion of the country appears to have been based.

* Fosbroke, 1014.



THE HUNTER. A STATUE IN MARBLE
BY JOHN GIBSON, ESQ. R.A.

PRINTED BY WOODWARD & LOVELL, 15, N. 4TH ST. N. Y. C.

T H E H U N T E R,

BY GIBSON OF ROME.

THE beautiful statue represented in the Plate affords a remarkable instance of the account to which the highly educated artist is frequently enabled to turn the casual combinations of form and movement which Nature provides abundantly, for the benefit of those who have the ability to appreciate and adopt the inspirations she offers. The simple incident of a boy struggling to restrain an impetuous hound caught the eye of the accomplished sculptor of this admirable work, as he was walking in the streets of Rome. His attention was at once arrested by the vigour of the contrasted action, and the idea of embodying it in marble immediately suggested itself to his mind. On arriving at his studio, Mr. Gibson made a sketch from his recollection of the incident, and shortly after commenced modelling it. The result is shown in the statue which forms the subject of our illustration, and which was unquestionably one of the most beautiful works of art contributed to the Great Exhibition; displaying as it does, in the most striking manner, the idealism with which the poetic imagination of the artist has invested the subject which formed the basis of his labours. The "Hunter" was originally executed for Mr. Sandbach of Liverpool, and the Earl of Yarborough is to be congratulated on the possession of the exquisite "replica" from which our drawing has been made.

Manifesting in this production a profound acquaintance with the works of Scopas, Praxiteles, and the other great masters of classic art, availing himself to the utmost of all the resources of execution displayed in their most successful efforts, and yet maintaining an originality essentially his own, Mr. Gibson has in this statue preserved all the best qualities of antique art, without allowing any peculiarities of mannerism to detract from its great merit. The graceful arrangement of the varied lines of the composition, the vigour of the action, the perfect balance of the figure, the manly beauty and activity of the Athlete, the eagerness of the hound, the anatomical detail expressed, but not overwrought, and the admirable finish of the carving, all contribute to the perfection of a whole, eminently calculated to maintain that national reputation for excellence in works of the highest order of sculpture which the genius of Flaxman first acquired for this country throughout Europe.

A remarkable coincidence between these two great masters in art—Flaxman and Gibson—is to be found in the habit, common to both of them, of idealising from accidental combinations of *pose* and form. An inspection of any of those charming note-books in which the former was wont to store the materials from which his compositions were subsequently elaborated, will demonstrate the felicity with which his genius seized and elevated the simplest actions of childhood and of youth. Girls skipping, boys playing, mothers fondling their children, and the most ordinary domestic incidents, were seized by his tender fancy and transferred to paper by his graceful pencil. Many of Gibson's most celebrated compositions, such for instance as the "Wounded Amazon falling from her Horse," "Jocasta parting her angry Sons," and a "Nymph dancing a Cupid on her foot," were in like manner adopted from the artist's casual observation of the scenes which were passing around him.

The few incidents which have disturbed the even tenor of Gibson's artistic life have been so gracefully sketched by one of the most accomplished female writers of the present day, that for information upon those

points, we may content ourselves with referring our readers to that delightful memoir.* On this occasion we prefer to notice a few of the leading circumstances of his artistic, rather than of his personal, career.

The relation of Gibson in point of time to the principal sculptors of the English school may be best appreciated by remembering that at the time of his birth, in the year 1791, Roubiliac had been dead nearly thirty years; Nollekens, at the age of fifty-four, was in the height of his reputation; Banks was somewhat older, exhibiting in that year his celebrated monument to the only daughter of Sir Brooke Boothby; Bacon about the same age, and equally popular; Flaxman in his thirty-sixth year; and Chantrey, a boy of ten years old in Derbyshire.

The greatest influence over the youthful energies of Gibson was undoubtedly exercised by Flaxman, to whose honour it must be recorded, that he was among the earliest of the artist race to appreciate the talents of the rising sculptor. There can, indeed, be no doubt that his advice materially strengthened Gibson in his determination to resist every inducement to remain in England, and encouraged him to study at the fountain-head the finest monuments of ancient art.

Gibson arrived at Rome in 1817, having produced several works of great promise before leaving England. Among these may be especially mentioned a cartoon of "The Falling Angels," which he executed when he was but about eighteen, and which is now preserved in the Liverpool Institution. About the same time he also produced a somewhat similar cartoon, the subject being taken from Dante. Even at that early age he had acquired considerable facility in modelling, which is testified by his exquisite reliefs of "Cupid Bound," and a "Recumbent Psyche," both designed for the centres of chimney-pieces. His early acquaintance with Roscoe doubtless contributed to foster that profound devotion to Greek art, which may be traced in all his works.

Already a skilful draughtsman and modeller, with a mind expanded by converse with friends so illustrious as those we have mentioned, and with his whole soul intent upon the study of his art, Gibson presented himself, in his twenty-sixth year, to the celebrated reviver of Italian sculpture, Canova. The liberal offers of assistance made on that occasion by this great artist and noble-minded man, and the independence manifested by the young Englishman, are alike honourable incidents in artistic biography. With such intensity did Gibson avail himself of the kind advice and instruction of Canova, that, for the first three years of his residence at Rome, he never missed attendance in the studio of his director for a single night. "Then," said he, in a letter quoted by Mrs. Jamieson,—"then, for the first time in my life, I received such instruction as I really needed, and learnt the practice and the laws which govern sculpture. The compositions I had executed at Liverpool were the productions of a vivid imagination which knew no bounds. All the designs I made at this time were to be within those rules which marble demanded. It was then I found how limited sculpture is."

From the period of his leaving the studio of Canova, in the year 1821, up to the present time, Gibson has occupied the same atelier in the Via della Fontanella at Rome. On the death of his "noble master," he placed himself under Thorwaldsen, and benefited by his instruction.

Among the earliest works executed by Gibson may be enumerated, "Psyche borne by the Zephyrs," first executed in marble for Sir George Beaumont; and a group of "Mars and Cupid," purchased by the Duke of Devonshire, his first distinguished patron, and now at Chatsworth. Mrs. Jamieson tells us that "among the drawings he first showed to Canova, there was a sketch of the meeting of Hero and Leander. Struck by the grace and passionate feeling of the sketch, Canova desired him to model it in bas-relief. The Duke of Devonshire ordered this also in marble, and it still adorns Chatsworth."

In all these early works, the training of the school of Canova is to be distinctly traced; and it is delightful, after the lapse of years which has separated the pupil from his master, to hear the affectionate respect with which the former still repeats the counsels of the latter. The advice that Canova constantly impressed upon all in whose progress he felt interested, was to study Nature, learning to study her aright by a constant reference to the antique. It has been our privilege to hear Gibson acknowledge that this advice has been his constant rule of practice; and the beauty of the numerous productions which have issued from his studio during the last thirty years, bears unequivocal testimony to its justice and value.

On the artistic peculiarities of Gibson's works, we hope to offer some remarks to accompany an engraving of one of those charming specimens which evince his profound acquaintance with the proper conditions of bas-relief.

* "Art Journal," vol. xi. p. 139.



M. DIGBY WHATT, DEL.

A GROUP OF OBJECTS IN GLASS, CUT AND ENGRAVED.

CONSISTING OF AN ENGRAVED CLARET, AND CUT WHEAT DOG BY GREEN OF LONDON. A VENETIAN CHAMPAGNE AND AN ENGRAVED ALE GLASS BY BACCHUS OF BIRMINGHAM. AND AN ENGRAVED CLARET GLASS AND WINE SALT CELLAR BY ANGLIA PELLERIN OF LONDON.

LONDON, PRINTED AND PUBLISHED DECEMBER 1851 BY DODD & SON, ENGRAVERS TO THE QUEEN.

A GROUP OF OBJECTS IN GLASS,

CUT AND ENGRAVED BY GREEN OF LONDON, BACCHUS OF BIRMINGHAM,
AND APSLEY PELLATT OF LONDON.

THERE are probably few of the staple manufactures of the country with the processes of which the public are more generally acquainted, than with those of the glass trade. The ductility and plasticity of the material in its heated state—the skill with which the workman is enabled to mould it to the requisite form—the picturesque effect of the glowing furnaces, and of the numerous workmen busily plying their avocations, and hurrying to and fro with masses of the glowing *metal*—all contribute to charm and interest the spectator of the varied operations carried on in the glass-house. It would, therefore, be probably repeating a thrice-told tale if we were to dwell, in this notice, either on the constituent elements of which glass is composed, or on the ordinary processes of its manufacture. Those, however, which were peculiar to the celebrated works of Murano, near Venice, are of so interesting a character, that we hope to be enabled to devote to them a separate notice. For the present our remarks will be confined principally to the great improvement in taste which has taken place during the last few years, in the manufacture of the ordinary objects of domestic use.

Among those whose labours have brought about this satisfactory result, there are few who have been more successful than the three firms by whom the elegant objects engraved in the accompanying Plate have been produced; and if we add to theirs the names of Messrs. F. and C. Osler, Rice Harris and Co., and Lloyd and Summerfield of Birmingham, and Messrs. Richardson of Stourbridge, our list will represent the leading houses in this department of production.

The establishment of Mr. Green, which was formerly conducted by the late Mr. Brumby, has long been noted for the excellence of the taste which has presided over it. Through its influence many of the most attractive novelties and graceful forms which have of late years acquired popularity in London, have been introduced to public notice. The beauty of form, and the exquisite refinement of engraving, which characterised not only the objects we have selected for representation, but the whole of the articles contributed by Mr. Green to the Great Exhibition, reflect the highest credit upon Mr. Daniel Pearce, the principal manager of that gentleman's works; from whose designs the decoration has, for the most part, been executed. In the completion of the articles so designed, some of the most skilful glass-cutters and engravers of the metropolis, and particularly Messrs. Coles, Keene, and Pye, have been engaged. It is the more satisfactory to be enabled to record the names of these skilful artisans, since, until very recently, a belief has existed that our manufacturers have been compelled to have recourse to foreign assistance for the highest class of engraving on glass.

The firm of Messrs. Bacchus and Sons is one of the largest contributors to the supply of table-glass throughout the country; and well sustained, in the Great Exhibition, that reputation for beauty and originality of form which their previous display in the Birmingham Exposition of 1849 had obtained for them. In the form of their wine-glasses and decanters especially, Messrs. Bacchus have succeeded in rivalling, if not excelling, the most charming productions of the Great Parisian establishment at Choisy-le-Roi. They were also among the first to revive in England many of those processes for the production of twisted and filagree glass, which had fallen into neglect since the days when the workmen of Murano ministered to the luxury of the Venetian nobles.

A GROUP OF OBJECTS IN GLASS.

To Mr. Apsley Pellatt the art of glass-working is indebted, not only for many of the most remarkable improvements which have been of late years introduced into its various operations, but for the most interesting record which has yet been published of the peculiarities of the manufacture.*

From the historical notices which, in Mr. Pellatt's work, precede that minute description of processes, to which we must refer such of our readers as desire to be initiated into the manufacture of this material, we gather a few interesting particulars.

Stow informs us,† that the Fryars' Hall (Crutched Friars) was converted into a glass-house for making drinking-vessels, which, with 40,000 billets of wood, were destroyed by fire in 1575. The manufacture had been set up in 1557, and was the first of the kind known in England. Pennant, in quoting this fact, adds, that the finest flint-glass was first made at the Savoy; and the first plates for looking-glass and coach-windows in 1673, at Lambeth, under the patronage of George Villiers, duke of Buckingham.‡ Mr. Pellatt remarks, however, upon these authorities, that the English manufacturers were for a considerable time much inferior to the Venetian, "for, in 1635, Sir Robert Mansell obtained a monopoly for importing the fine Venetian drinking-vessels. The art of making these was not brought to perfection in this country till the reign of William the Third."

At a period contemporary with the first establishment of the glass trade in London, there is reason to believe that it was also introduced at Stourbridge in Worcestershire; in which situation it has continued to flourish to the present day. Local tradition ascribes its introduction there to a family from Holland, whose name is believed to have been Hensell. From that period, its progress, though slow, has been remarkably steady, and the great glass-works of Birmingham may be considered as off-shoots from the primitive establishment at Stourbridge.

From occasional representations to be met with in the works of Hogarth and other artists of that period, and from the curious old specimens occasionally found in the corner-cupboards of old farm-houses and cottages throughout the country, it is evident that the forms which were then most popular presented a remarkable affinity to the lighter specimens of Dutch and Flemish glass. Subsequently the public taste took a more substantial direction, and manufacturers appeared to rival one another in using glass in the densest masses and heaviest forms. Elaborate cuttings, in unartistic patterns, scored over the surfaces of every object; and it became almost as difficult to drink out of one of these clumsy wine-glasses as it was dangerous for any one possessed of other than the strongest arm to pour out wine from the ordinary form of decanter.

Within the last ten or fifteen years, a considerable reformation has taken place, and glass is now generally employed in that thin, light, and refined proportion so admirably suited to its delicate and fragile nature.

It is satisfactory to be able to recognise the just appreciation which is now beginning to be entertained of the beauty and consistency of those forms which result from the ordinary operations of the glass-blower's art. What can be more graceful than the primitive form of the common wine or oil-flask? Those simple parts which are essential to the construction of a comfortable drinking-glass are now constantly retained in all their simplicity and integrity. The bowl, the stalk, the knop, and the foot, are no longer blended in disagreeable curves, but are allowed each to assert their own proper office; and the skill of the artist and engraver is called in rather to decorate than to disguise them. Several of the specimens we have selected exhibit most favourably this peculiarity, and bear testimony to the extreme beauty of the art of engraving on glass.

In concluding our notice, we cannot do better than by extracting a few remarks from Mr. Pellatt's work, illustrating the peculiarities of this branch of art-manufacture. "Copper wheels and finely-pulverised emery, mixed with oil, are used to execute the outline and ground of the modern engraver's work; and for the polished work, lead wheels and very finely-pulverised emery are employed. Coarse patterns for hall-lamps are engraved by the glass-cutter's smoothing-wheel. The contrast of the polish of a wood-wheel upon a ground roughed by sand is often effective, though the range of pattern is somewhat curtailed by the large size of the cutter's wheels rendering it difficult to execute curvilinear designs. The Venetians practised a curious art of engraving with the point of a diamond, or broken steel-file. This simple process was no doubt employed anterior to engraving by the lathe. To this it probably gave way, as the accurate artistic effects of the lathe far surpass the crude work of steel or diamond-etching: Etching by fluoric acid has been introduced, but its bite is not sufficiently rough, and is not found effective for general purposes. Pleasing effects are produced by engraving through an outer casing of coloured glass into an interior white, transparent, or enamelled glass, usually afterwards decorated with gold, and painted in arabesques or other patterns. This work is chiefly the produce of Bohemia, Bavaria, and France." We may add, that it has recently been executed at Mr. Pellatt's and other English glass-works with complete success.

* "Curiosities of Glass-making. By Apsley Pellatt." London, 1849. † "Survey," 293. ‡ Pennant's "London," 5th ed. p. 377.



RAFTER, DEL.

W. DIGBY WYATT, DIRECTOR

F. BEDFORD, LITH.

FOUNTAIN AND ORNAMENTAL GATES,
(IN CAST IRON)
BY THE COALBROOKDALE COMPANY.

LONDON, PRINTED AND PUBLISHED DEC 1ST 1851, BY DAY & SON LITHOGRAPHERS TO THE QUEEN.

FOUNTAIN AND ORNAMENTAL GATES IN CAST IRON,

BY THE COALBROOKDALE COMPANY.

THOSE evidences of the skill of the iron-founder which abounded throughout the mechanical department of the Great Exhibition, displayed the high degree of perfection which English manufacturers have attained in the present day, in the production of exceedingly large castings, of perfect precision of form, and homogeneity of texture. The objects, adapted for every domestic purpose, and for the reproduction of works of art, afforded equally convincing proofs of the excellence to which the more artistic applications of the material have been brought, and its capabilities as a medium for rendering, in cheap and permanent form, the happiest inspirations of the artist.

The application of iron to such uses is comparatively modern; and great credit must be given to the Coalbrookdale Company for the spirit with which they have brought to bear the unrivalled resources of their establishment in the elaboration of works of sculpture of considerable pretension. So vast are the operations of that celebrated company, and so important the products it delivers to the market, that we feel it our duty to offer to our readers a short notice of its origin and progress.

Coalbrook Dale is situated at a short distance from Madeley, in Shropshire, in a district, the geological peculiarities of which render it eminently eligible for the establishment of an iron-foundry,—both minerals and water abounding in its vicinity. These natural capabilities were taken advantage of at an early period; and we find that in the time of Charles I. iron-works had been already established there for some time, and were in the possession of a Royalist family of the name of Wolfe. The property subsequently changed hands, and in the reigns of Anne and George I. and II. we find it had been transferred to a Mr. Fox, who converted the establishment into a large manufactory for grenades and cannon-balls.

In 1707, Mr. Darby, a manufacturer of Bristol, took a lease of the works, which at that time had dwindled to a single furnace and foundry. He considerably enlarged the works, and carried on the manufacture of kitchen utensils, and other articles, which were cast by a process peculiar to himself.

It was, however, through the genius of his son, a man of remarkable scientific attainments, that the reputation of the foundry was placed on a permanent footing. By his energy and perseverance, many difficulties were overcome, and he may be admitted to have worthily attained celebrity, since it was through his influence that the first iron tramway for coal waggons was laid down in England, and the first iron bridge constructed. Assisted by a Mr. Wilkinson, he erected, in the year 1779, that celebrated bridge over the Severn, near Madeley, which has conferred its name upon the adjacent market town of Ironbridge.

From that period to the present, the works at Coalbrookdale have increased rapidly in extent and importance, and at the present time, under the able management of Mr. Crookes, they furnish employment to about four thousand individuals. This vast number of workmen comprises every gradation of intelligence, from the master who controls, to the boy who assists in hewing the coal to feed the furnace. Clerks, artists, modellers, carvers, pattern-makers, moulders, furnace-men, casters, finishers, smiths, fitters, japanners, painters, gilders, bronzists, and decorators, all contribute to the elaboration of that extraordinary series of objects which are constantly issuing from this establishment.

Every possible variety of those smaller articles which enter into the daily consumption of the great mass

FOUNTAIN AND ORNAMENTAL GATES IN CAST IRON.

of the middle classes, are made at Coalbrookdale. Stoves, fenders, chairs, vases, inkstands, card-baskets, scrapers, &c., form the staple manufacture; but, in addition, numerous large works, of a more ambitious class, such as the Fountain and Ornamental Gates now engraved, and the extraordinary Dome, which occupied so prominent a position in the Great Exhibition, are frequently produced.

The point of view in which we especially must take occasion to commend the Coalbrookdale Company, is in reference to the energy and liberality with which they seek to employ and reward the highest class of artists. The beauty of such productions as the Fountain we engrave, the "Eagle Slayer," and other works of a similar class, do credit alike to Mr. Bell, the sculptor, and to the Company. We cannot but regard them as the beginning of a very important branch of industry: and so soon as scientific chemists shall have discovered a material which, superseding paint, shall effectually protect iron from oxidation, without destroying the perfection of its surface, or the sharpness of its angles, we have no doubt it will be very largely employed in the formation of objects of the highest class of art.

Those only who are technically acquainted with the extreme difficulty attendant on the conditions of sand casting, can realise the care and labour necessary to the production of any work of such a character; since the slightest under-cutting entails a great amount of labour in the preparation of what are called *loose cores*, which are moulded in sand, and require to be adjusted with extreme delicacy, so as to allow the molten metal to be run in, in order to produce exactly the requisite form. In large castings the various parts frequently have to be made separately, and adjusted together. The skill acquired by the fitters in concealing these junctions is very great; and it requires a practised eye to detect the existence of a well-finished joint. Considerable experience is required on the part of the designer, since provision must be made by him to ensure that the contraction of the metal while cooling shall proceed uniformly over the whole of the casting, since otherwise the portions which retain their heat longest would tear away from those which had set most quickly, and thus the work would be spoilt. On the intelligence of the pattern-maker, too, very much depends, since he has to make allowance in his patterns for the amount of shrinkage, which varies constantly in proportion to the scantling, and quality of the iron used.

There are few points involved in greater obscurity than the exact period at which iron was first cast in England. It is certain that the use of this material was well known both to the Romans and the Saxons; and the smiths of many districts attained great celebrity, their skill being evinced by many remains which have descended to our own days. There is, however, little ground for believing that the practice of casting iron in sand was introduced earlier than the middle of the sixteenth century. To that period the style of the fire-dogs which decorate some of the old mansions of our nobility unquestionably points. Tradition asserts that the railing which surrounds St. Paul's Cathedral was among the earliest applications of cast iron to architectural purposes upon a large scale.

It may appear superfluous to remark upon the great extent to which cast iron has been employed in recent times, in structures of every description; or upon the crowning illustration of its adaptability to such purposes, afforded by the building for the Great Exhibition of 1851.



1850-1851

M. DUBOVSKIY, GIBET

F. B. 1850-1851

SPEYMONS OF RUSSIAN EMBROIDERY.

WORKED IN GOLD AND SILK. JULY, DEC. 1851, BY H. & SON, PHOTOGRAPHER TO THE QUEEN.

SPECIMEN OF RUSSIAN EMBROIDERY.

THE beautiful and extremely interesting pattern which we offer in the present Plate, mainly as suggestive to the fair sex of an agreeably conventional arrangement of ornament in embroidery, has been executed on velvet by Armenian ladies of the town of Tiflis, in the Caucasus. It forms part of a series of similar elaborate objects, forwarded by the Count Woronzow as a present to his sister, the Countess of Pembroke.

The most cursory examination of this beautiful collection would convey to the minds of all who are interested in such matters a sense of their identity of style with that which so peculiarly characterises Greek or Byzantine art. It is impossible not to recognise a reproduction of the leading types of the latter style in the combats of animals, the singular birds, the frequent introduction of clustered pomegranates, and the rude imitations of the acanthus-leaf and the caulicoli of classic art; as well as in the brilliancy of the colours, and the redundancy of the gold edging used to define all the outlines, which are features alike characteristic of Byzantine and Russian embroidery.

The preservation of the outward types of Byzantine iconography, through the medium of the Greek Church, is forcibly illustrated by the paintings of Saints with which the screens of Russian churches are still decorated, and by the figures and ornaments worked in the coarse enamels so universally treasured in that empire as amulets. It is, therefore, not surprising to find those peculiar constituent elements which form the bases of Byzantine arabesque and foliation manifested in the Caucasian ornaments now before our readers.

There is abundant evidence to show, that in the earlier days after the transfer of the seat of empire to Byzantium a taste for luxury pervaded the corrupt society of that city. All classes sought with avidity the richest fabrics and the most precious furniture; silks were woven and embroidered with the greatest variety of designs; flowers, animals, and birds, with incidents from the life of Christ and the legends of the Menologion, were depicted on the most costly stuffs. St. Asterius describes the tunics and mantles then in use as being covered with a profusion of figures, amounting, in one instance, to as many as six hundred;—a degree of prodigality and luxury which caused him to exclaim that “the dresses of the effeminate Christians were painted like the walls of their houses.” So great, indeed, and so universal, was the taste for these objects of personal adornment, that St. John Chrysostom denounces its pernicious influence, declaring that in his time “all admiration was reserved for the goldsmiths and the weavers.”

In spite, however, of the denunciations of the Saints, and the calamities which subsequently befell the Greek Church, that establishment has never ceased to impress the senses of its devotees by a bountiful display of the richest colouring and gilding. The splendour of the dresses of the priests, and the richness of the ecclesiastical hangings, were universally in accordance with the gorgeousness of the golden mosaics which line the walls of the churches. Wherever the Greek priests went, gold and ornament appear to have travelled with them; and hence it is that we find, in the most remote districts of Russia, fabrics of the richest materials and most elaborate design, expressly destined for the service of the Church.

The taste for embroidered decorations, thus imported into Russia from Byzantium, was not confined to the

SPECIMEN OF RUSSIAN EMBROIDERY.

clergy; for an examination of the plates in the great Imperial work on the Antiquities of Russia proves that the robes of the ancient Czars were decorated in a style of lavish splendour which could scarcely have been exceeded. It is evident, also, from other works illustrative of Russian Costume, not only that the different races throughout that vast empire indulge, on festivals and state occasions, in a profuse display of embroidery, but that many districts possess a style of ornament peculiar to themselves; doubtless modified from the original Greek type by the circumstances of their affinity to and intercourse with the surrounding tribes. The Oriental element has, no doubt, exerted a favourable influence on Caucasian embroidery; since the constant traffic which passes through the Caucasus, from Persia and Turkey to the manufacturing districts of Russia, and *vice versâ*, must have familiarised its inhabitants with Oriental customs, and has very probably tended to maintain a predilection for this luxurious art.

One branch of the art of embroidery, which has long been universally popular in Russia, is that of the embroidery of leather. We learn from M. Erman* that "the inhabitants of the town of Torjok are all engaged in making various articles of Russia leather, which they either embroider with gold and silver, or unite in patterns of different colours. These productions have lately become an article of the Russian export trade. The Russians learnt this art from the Tatars, whom they soon surpassed; and the name 'Kasan boots,' now usually given to the boots and shoes made in Torjok, points to a Tatar origin: for, among the Russians, 'Kasan' was originally the land of the Tatars. The leather used in this manufacture is not prepared at Torjok, but is brought from the capital." Of this variety of Embroidery many admirably executed specimens were contributed to the Exhibition; but as they displayed no very striking beauty or peculiarity of design, we have not considered it necessary to engrave any of them.

* "Travels in Russia, Siberia, &c., by Adolf Erman, translated by W. D. Cooley." 1848.



J. WINTER, DEL. ET LITH.

M. DOLBY WYATT, DIRECT.

"CASSETTE" CARVED IN IVORY, EXHIBITED BY MATIFAT OF PARIS

LONDON, PRINTED AND PUBLISHED DEC'R 15TH 1851, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

COFFRET, OR JEWEL-CASE,

CARVED IN IVORY, EXHIBITED BY MATIFAT OF PARIS.

THIS beautiful casket, which, from the purity of its form and the delicacy of its execution, is worthy to have graced the toilet-table of a Faustina or a Poppæa, is the design of M. G. Dicterle. This young artist, was appointed principal designer to the Royal Manufactory at Sèvres, immediately after the Revolution of 1848. He is favourably known to the Parisian public, not only as having originated many of the most admirable objects in the Sèvres department of the Great Exhibition, but by his compositions for the decoration of the Louvre. In conjunction with M. Séchan Dupleschin, he has also contributed designs for much of the striking scenery, which has procured universal approbation, for the *spectacles* of the Grand Opera and other theatres of Paris.

The successful execution of the design now engraved has been presided over by the refined taste of M. Matifat, who himself received an artistic education, having been articled at an early age to Vechte, the celebrated sculptor and chaser in metals. Succeeding to the establishment of his father in 1842, he considerably extended its capabilities; and bringing to bear upon his business the experience of his education, was enabled to elevate the productions of his *atelier* to the highest range of artistic excellence. In the last Parisian Exposition he was awarded a silver medal; and his works received most favourable notices from the French papers, the "Art-Journal," the "Journal of Design," &c. Among the principal objects which he has executed may be especially noticed two splendid cabinets, in the style of old boules, for which he received a commission from Sir Watkin William Wynne, Bart.

M. Matifat's contributions to the Great Exhibition were especially distinguished by their originality, and the amount of thought bestowed upon their fabrication. Whether we regard the variety of outline of his lamps, the forms and processes of ornament which decorate his vases, or the harmonious combination of lines in his small bronzes, it would be unjust to refuse him credit for at least as much freshness and power of design as was displayed by any other exhibitor in the same departments of industry.

The coffret, or casket, now engraved, is a charming specimen of the revival of the species of art known to the ancients as chryselephantine; that is, one in which the sculptor produces his effect by the combination of ivory with gold and other metals. We propose, in the present notice, to give a brief sketch of the history of that art among the ancients, as introductory to the subject of recent and actual ivory carving.

The many references in Holy Writ to the trade in ivory, and the singular relics of sculpture in that material which the Assyrian researches of Mr. Layard have brought to light, carry back to the remotest periods the records of the abundance of that material, and the skill which had been attained in the art of carving it. We cannot, therefore, be surprised to find classic authors designating that mode of sculpture, which consisted of a mixture of gold, wood, ivory, &c., as "the ancient" style. Its origin is by these writers usually ascribed to Dædalus. Two sculptors, whose existence is less fabulous—Dipænus and Scyllis of Crete—are recorded to have worked, not only in the Toreutic manner, but to have made the hair of their statues in ebony, and the buskins in ivory. At the temple of Dioscuros, at Argos, the most ancient statues of this kind were to be found; and from the rude beginning they displayed, there can be little doubt that the most exquisite Greek chryselephantine statues were subsequently elaborated. Twenty statues of gold and ivory, "executed in the ancient style," were

contributed to the decoration of the Heræum of Olympus by the two brothers Doryclidas and Medon, pupils of the last-named artists.

Pausanias speaks highly of a series of statues representing the Hours, which were executed in ivory by Smilis, a sculptor, who lived about 560 years B.C. These figures were represented as seated on thrones, and were placed beside a statue of Themis, one of the most celebrated productions of Doryclidas.

About 525 years before Christ, Calachus produced a statue of Diana at Sicyon, in gold and ivory, which, though somewhat hard in style, was much admired. Endæus worked in the same manner, and executed a celebrated winged Minerva, principally in wood, and a statue of the same goddess in ivory, at Erythræ. Hegesias, or Hegeas, succeeded, about 491 B.C.; and, somewhat later, Calamis executed a figure of Æsculapius, in gold and ivory, at Sicyon. This city, indeed, appears to have been highly celebrated for this species of art, since the statue of Juno of Argos was produced by Polycletes, a native of Sicyon,—so able an architect, and so good a sculptor, that one of his statues was regarded by his contemporaries as the standard of proportion by which the excellence of similar works was generally estimated. This artist lived about 459 years B.C.

In approaching the age of Pericles we meet with a remarkable concatenation of circumstances, tending to make this period the culminating point of chryselephantine art. Seneca relates that the philosopher Democritus, who lived about this time, discovered the means of softening ivory; and, under the immortal Phidias, Athens and other cities of Greece were embellished with a number of colossal statues in this style. The artistic life of Phidias probably extended from about the seventy-fourth to the eighty-eighth Olympiad. His renowned Minerva of the Parthenon was finished in the second year of the eighty-fifth Olympiad. A just idea of the grandeur of this statue, and the technical peculiarities of its execution, may be formed from an examination of M. Quatremere de Quincy's admirable restoration of it. In the first year of the eighty-seventh Olympiad, Phidias completed his great Jupiter in the same style.

Among the most celebrated pupils of the last-mentioned artist, we find the names of Alcamenes of Athens, Scynnus of Scio, and Eucadmus. A Bacchus, by the former of these, was very generally admired. Theocosmos, who studied in the same school, commenced a colossal Jupiter Olympus at Megara, of which he was only able to complete the head, the remainder having been executed in terra cotta and plaster.

From the period of this last-named work (about 347 B.C.) a long interval occurs, in which a practice of covering statues with a species of encaustic varnish of white wax was adopted,—probably to give the effect of ivory, and to avoid the labour and expense entailed by the employment of that material. Praxiteles (about 336 B.C.) brought the latter process to perfection.

The art of sculpture in ivory, which thus appears to have declined considerably in Greece, was extensively adopted in other countries. Thus we find that, in Egypt, the ship of Ptolemy Philadelphus was adorned with ivory statues, wonderful in their workmanship and magnificence; and thus it was that Nicomedes, taking Bithynia, between the years 279 and 251 B.C., executed several works in the same style.

Towards the year 170 B.C., Antiochus Epiphanes, the great protector of learning in Syria, endeavoured to revive this among other arts in Greece. He employed Cossutus, a Roman architect, to continue the erection of the temple of Jupiter Olympus at Athens, causing a great number of ivory and gold statues to be made there. It was his desire to place the Phidian Jupiter in the temple at Jerusalem, but, failing in that attempt, he succeeded in producing a colossal Jupiter at Antioch, in imitation of that of Phidias. Excited, probably, by this revival, there is reason to believe that the sons of Polycles (to whom Winckelmann ascribes the Borghese Hermaphrodite) made a Minerva Cranea, in gold and ivory, near to Elatea.

The first work of this kind which we find mentioned as executed at Rome was by Pasiteles, a Greek artist, who settled there about seventy-five years B.C. Among his productions in the ancient style was a Jupiter in ivory, for the temple of Metellus. There is little ground, however, to suppose that ivory statues were popular in the early ages of Rome; since it is not till we approach the Christian era that many traces can be found of the existence of the art. The Olympian Jupiter was yet existing at Athens in the reign of Caligula, A.D. 37, and that monarch is recorded to have been anxious to procure its transport to Rome. Under the auspices of the great reviver, Hadrian, many chryselephantine statues were executed at Athens; and down to as late a period as A.D. 150, the art continued to be occasionally practised. From that time, however, the connexion between ivory and the precious metals appears to have ceased; and the practice of ivory carving is only to be traced in its application to small objects, such as the consular diptychs, &c.

Of the peculiarities of style which distinguish the early Christian carvings, and the successive steps which lead from them to the refined productions of Jean Goujon and Du Quesnoy, it will be our duty to speak on a future occasion.



M. BIRBY WATT 1861

F. HEDDARD LITH.

SILK BROCADES BY CAMPBELL HARRISON & LLOYD OF SPITAL FIELDS FOR HOWELL JAMES & CO. OF LONDON,
 AND BY VANNER & SON OF SPITAL FIELDS

LONDON PRINTED AND PUBLISHED DEC. 15TH 1861 BY DAY & SON, LITHOGRAPHERS TO THE QUEEN

SILK BROCADES,

MANUFACTURED BY CAMPBELL, HARRISON, AND LLOYD, OF SPITALFIELDS, FOR
HOWELL, JAMES, AND CO., OF LONDON, AND BY VANNER AND SON, OF SPITALFIELDS.

THE brilliancy of colour and finished execution of the two silks we have engraved, bear satisfactory testimony to the perfection which the processes both of dyeing and silk-weaving have attained in this country. Although the examples exhibited by Messrs. Howell, James, and Co., were excelled in elaboration by a few productions, such as the extraordinary silk contributed by Messrs. Lewis and Allenby (the manufacture of which involved the use of no less than 30,000 cards and 100 shuttles), they illustrate even more satisfactorily the staple condition of the best class of silk goods of Spitalfields production.

It is a curious evidence of the inconstancy of that fickle goddess, Fashion, that the style of these patterns—expressly produced for the Great Exhibition—is already passing out of vogue; and smaller ornaments, and flowers of more tender colours, are rapidly superseding them in popularity. For the purpose of illustrating a series of such fluctuations, we had examined many of the patterns of past years; but so constantly did the same elements of ornament recur in them, that it would have been difficult to have classified the motives of their design, and impossible, without numerous diagrams, to have conveyed any idea of their sequence or characteristics. We determined, therefore, to confine our present observations to a general notice of the history of the silk-trade.

While various classic authors bear testimony to the fact that raw silk and silken garments were known to the principal nations of antiquity, the almost fabulous prices recorded to have been paid for that material prove also its extreme rarity. These scanty supplies were obtained from China and from India. We learn from the interesting notices collected by Mr. Porter,* that “silk was very little known in Europe before the reign of Augustus, and that it long remained extremely costly.” In spite, however, of its great expense, the patrician ladies frequently indulged in the use of garments woven entirely of silk; the inferior classes, both males and females, making use of robes in which a portion only of silk was interwoven with a cheaper material. The luxurious habits of the Romans accompanied them to Byzantium, and the supply of their wants afforded a rich harvest to the Persians, who monopolised the trade with India and China. The prices, however, at which the Persian merchants delivered their goods to the inhabitants of Constantinople, were so outrageous as to lead to every possible endeavour on the part of the Greek emperors to obtain the products of the East through other sources. Justinian, after failing in several attempts to force a supply, at last caused the almost total extinction of the trade. Singularly enough, however, at this moment relief came from a quarter whence it was least expected. Two Persian monks, who had been employed as missionaries in some of the Christian churches established in China, returning to Constantinople, brought to the Emperor the result of their observations upon the Chinese method of obtaining the raw material. Urged by the promise of a great reward, and eluding the jealous observation of the natives, they succeeded in the acquisition of a quantity of silk-worms’ eggs. In the year 552 they returned in safety to Constantinople, with their store of

* In his excellent “Treatise on the Origin, Progressive Improvements, and Present State of the Silk Manufacture.” — LARDNER’S *Encyclopædia*, vol. xxii.

eggs preserved in a hollow staff. By carefully imitating the Chinese processes, these monks at last succeeded in producing raw silk in abundance, and in procuring for Europe a good breed of silk-worms.

Thus introduced into Byzantium, the manufacture was immediately monopolised by the sovereign, who took care to charge his faithful subjects most exorbitant prices for the commodities he supplied. The propagation of the silk-worm was, however, soon extended to other districts; and for many centuries the Greeks generally, through the commercial intervention of Venice, supplied the whole of the Western parts of Europe with silk. Mr. Porter observes, that the estimation in which the manufacture was held continued so high, that its products were considered worthy of being made regal gifts. Thus in the year 790 the Emperor Charlemagne sent two silken vests to Offa, king of Mercia. The national monopoly which commenced in the reign of Justinian, continued undisturbed for a period of not less than 600 years, until the reign of Roger I., king of Sicily. Among the precious spoils of his invasion of the Greek empire, this sovereign brought back many Greek silk-weavers, to whom he granted life and sustenance on the condition only of their imparting to his subjects the secrets of their art. Several writers, quoted by Muratori, bear testimony to the beauty of the silks which were consequently produced; and the richly-decorated costumes, of which such interesting types are presented by the figures in the ancient mosaics, no doubt derive much of their brilliancy from the skill of the Sicilian weavers. By degrees, a knowledge of the processes of the silk manufacture spread throughout Italy, and was carried into Spain, obtaining extreme popularity among the Moors.

From the commencement of the thirteenth century, the trade in silk generally appears to have been most extensively carried on in Venice and Genoa, whilst the art of spinning was mainly conducted at Bologna, and that of weaving at Florence. The merchants of Antwerp, who maintained the principal commercial relations with the Italian cities, exchanged in large quantities the cloths of the west of Europe for the silks of the East, and eventually contrived, in the beginning of the fifteenth century, to procure a knowledge of the processes for the artisans of their own country.

From its establishment in Flanders, there is little doubt that the manufacture was soon introduced into England; since, in 1455, a company of silk women was established in London. On the occasion of the capture of Antwerp by the Duke of Parma, in 1585, it is stated that a third part of the merchants and workmen engaged in the silk trade fled to England, and settled there. These refugees laid the foundation of that manufacture which, at the latter end of the reign of James I., had grown into a thriving condition, and was incorporated in the year 1629, under the style and title of "the Master, Wardens, Assistants, and Commonalty of Silk Throwsters." Passing by the old stories of Henry the Eighth's silk hose, and Queen Elizabeth's black silk stockings, which would appear to have been of Spanish production, we may turn to the invention of the stocking-frame by William Lee, a poor student of St. John's College, Cambridge. So great a revolution did this occasion, that the English silk stockings speedily attained an enviable notoriety throughout Europe.

The French silk-trade (which had been established by Louis XI. at Tours, in 1480, and at Lyons by Francis I. in 1520) had, under the auspices of Henry IV., attained a state of prosperity destined to be sadly interfered with by the unfortunate revocation of the Edict of Nantes, which, in the year 1685, banished a vast number of the most intelligent and industrious of the French population. Out of about 70,000, who made their way to England and Ireland, a large number had been engaged in the silk-trade. Settling at Spitalfields, they introduced many improvements into the English manufacture. The silks called *alamodes* and *lustrings* were introduced by them; as well as *brocades*, *satins*, *black and coloured mantuas*, *black paduasoy*, *ducap*, *watered tabbies*, and *black velvets*, all of which fabrics had previously been imported. A great commercial advantage was gained by this country in the introduction, by Sir Thomas Lombe, in 1719, of the Italian processes of throwing silk; that is, of reducing it from the original filament to the states known as *tram* and *organzine*, necessary for forming respectively the weft and the warp of all silken fabrics. By this improvement the English were enabled to compete successfully with those countries upon which they had so long depended for the greater part of their supply of silk twist. The production of figured patterns by means of the draw-loom, and its attendant draw-boy, was completely superseded in the year 1823, when the Jacquard loom was first introduced into Spitalfields. Attempts to establish factories in which it might be worked, were made at Manchester and Macclesfield. These attempts were all happily crowned with success; and whilst formidable rivals to Spitalfields have sprung up in the manufactories of those towns, the former has nevertheless been enabled, by judiciously keeping pace with every improvement in machinery, to maintain its old high position in the production of the best kinds of plain and fancy goods.



FIG. 1. FOUNTAIN.

DESIGNED BY J. H. RAY.

THE FOUNTAIN IS THE PROPERTY OF THE
CITY OF BOSTON AND IS LOCATED IN THE
PARK OF THE CITY OF BOSTON.

THE FOUNTAIN WAS DESIGNED BY J. H. RAY AND WAS
ERECTED IN 1876.

THE CRYSTAL FOUNTAIN.

BY F. AND C. OSLER, OF BIRMINGHAM.

THOSE upon whose memories the first sight of the glorious Transept of the Great Exhibition has stamped a clear and lasting image, cannot fail to remember that striking object which formed so conspicuous a feature in the middle-ground of the picture then presented to their view.

It would be difficult to imagine a central ornament more appropriate for a Palace of Glass, than a Crystal Fountain; and there is no doubt that as a striking novelty in the application of the material, and as a pleasing and graceful object in itself, it must, in a pre-eminent degree, have excited the interest and admiration of the foreign visitors, who responded to the invitation accorded to them on the occasion of the first Exhibition of All Nations. Never before had a piece of glass-work been executed, involving the treatment, in casting, cutting, and polishing, of blocks of glass of a size so large, and of a purity so uniformly faultless.

The firm by whose exertions this superb object was produced, were already favourably known to the public by the taste which has always characterised their ordinary trade-productions. Having been led some years ago to execute a splendid candelabrum in glass, for the late Pacha of Egypt, the Messrs. Osler acquired, in the course of its formation, such an amount of practical dexterity, as induced them to undertake with confidence the preparation of a still more magnificent ornament, of a similar nature, twenty feet in height, expressly as a contribution to the Birmingham Exhibition, held at Bingley House in 1849. This latter work was purchased by the Nepaulese Ambassador.

Excited by the admiration universally elicited by these productions, the Messrs. Osler determined that their chief contribution to the Exhibition of All Nations should far surpass their previous attempts. Mr. Follett Osler has communicated to Mr. Hunt's "Hand-Book to the Great Exhibition" an interesting account of the difficulties which presented themselves in the course of executing the Crystal Fountain; and as we feel ourselves unable to describe them in language more graphic than that gentleman has employed, we take the liberty of adopting his words:—"The experience gained in making the candelabra for Egypt has been of considerable use to us in making the great Fountain; though the difficulties attendant on the latter work were far beyond what we anticipated when we first entertained the idea of its construction. Indeed, for some time it progressed so slowly, that we feared we should be obliged to abandon the undertaking. First, the moulding of such large pieces of glass is very troublesome and difficult, and the waste very considerable. The annealing also is very hazardous. If the kiln in which this process takes place is at all too hot, the work is bent out of form by its own weight; and if too cool, fracture is certain to take place, either immediately, or during the process of cutting—that is, grinding and polishing. This annealing, or cooling process, occupies a space of from six to seven days; and as only a comparatively small portion of the whole can be made at once, much time is consumed. Such parts as have stood the moulding and annealing, have next to be submitted to grinding, and here much additional risk is incurred; for every part is richly cut all over. Upwards of four tons of crystal-glass were used in the construction of the Fountain now in the transept of the Exhibition. The principal dish is upwards of eight feet in diameter, and weighed, before cutting, nearly a ton. The shells round the base weighed nearly fifty pounds each previous to cutting. The public can really form no conception of the labour and troubles to be gone through in producing this work, though I think the glass trade must

THE CRYSTAL FOUNTAIN.

be pretty sensible of it. After all, there is not only the glass, but the construction and engineering difficulties, if I may so call them, to be overcome. We have had the kind advice and assistance of Mr. Barry, who has taken a great interest in the work, and he has aided us with his valuable advice. We look to this rich and massive style of work as opening a new feature in the trade, a smaller sample of which (a pair of candelabra) may be seen in our case in the gallery. These were executed by command of His Royal Highness Prince Albert, and were presented by him to Her Majesty on her birth-day in 1849, and are placed in the drawing-room at Osborne. They are upwards of eight feet in height, and carry fifteen lights each."

In reference to the peculiar brilliancy of Messrs. Osler's glass, it must be remembered that the term *white*, as applied to glass, is only comparative, since no glass is perfectly colourless; and to the practised eye of the glass-maker there exist no two pieces of the same tint or shade. Mr. Apsley Pellatt, who has directed his attention particularly to the influence of oxygen on the colour or tint of flint-glass, read an interesting paper on the subject at the Society of Arts, in the autumn of 1849. He therein dwelt upon this influence in two distinct particulars; first, in the action of oxygen upon the glass-mixture during its melting or founding, and whilst in a state of fusion; and, secondly, during its annealing, or gradually cooling. Mr. Pellatt describes the constituents of flint-glass as "silica, lead, carbonate of potash, and nitrate of potash. The silica is found sufficiently pure, as fine sand, which abounds in various districts; that from Alum Bay, in the Isle of Wight, being most esteemed. The protoxide of lead (litharge), or the deutoxide (red lead), is the state in which the lead is used; and the potash is the ordinary *curl*, or nitrate of potash of commerce. These, when mixed in certain proportions, and subjected to a strong heat for sixty or seventy hours, produce flint-glass. The purer the *metal* the more transparent the glass; but, although all the materials be chemically pure, a colourless glass is not the product. Owing to some chemical change which takes place during the melting, the glass is tinted with green." In a notice of this subject in the "Journal of Design" (vol. ii. p. 182), it is observed, that this phenomenon is generally stated to arise from the presence of oxide of iron; but the result of Mr. A. Pellatt's experiments goes far to demonstrate that the defect is in truth owing to the want of a necessary proportion of oxygen in the mixture. To supply this want, and to counteract the consequent tendency to a green tint, the oxide of manganese, which has the property of giving off its oxygen very slowly, is constantly introduced. Should, however, the manganese be used in superabundance, a purple tint is induced, which requires a certain amount of carbon to neutralise its action. The greater the heat to which the materials are to be exposed, the greater is the quantity of manganese required. The broad result of Mr. Pellatt's inquiries is a conviction that the changes in the colour of glass are due to the presence or absence of a due amount of oxygen.

So fine are the proportions in which the various elements which constitute perfection in glass manufacture require to be combined, and such grave defects do the slightest impurities entail, that it is not easy to realise to the imagination the amount of thought, study, and attention which the Messrs. Osler must have devoted to the production of this beautiful and extraordinary work.



J. CLAYTON DEL.

W. DICKINSON & CO. LONDON

INDIAN KINCOB PATTERN, WOVEN AT AHMEDABAD.

F. BEDFORD LITH.

LONDON PRINTED AND PUBLISHED DECEMBER 1881 BY TAYLOR & FRANCIS LITHOGRAPHERS TO THE QUEEN

INDIAN KINCOB PATTERNS,

WOVEN AT AHMEDABAD AND BENARES.

THE Great Exhibition displayed, probably, no more striking deviation from the ordinary relation in which the method of manufacture stands to the finished article, than was evidenced by the extraordinary discrepancy between the rudeness of the Indian looms and the refined beauty and delicacy of the fabrics produced by them. A very few lines of description will serve to indicate at once the simplest series of operations by which textile goods can be fabricated, and the customary practice of the Indian weaver. The workman first determines the width and material of the stuff he is about to make, and selects as many skeins of yarn or twist, of uniform length, as he wishes to have threads in the width of his fabric. He then prepares two bamboo rollers, and a fine comb made of strips of split bamboo tied together. Attended by his wife, or some other assistant, he then carries out to a field the materials he has prepared. The ends of the threads are first passed through the interstices of the comb, and then secured to one of the bamboo rollers; this is done to every thread, until the whole series, making up the width, are attached in a uniform line. The roller, thus prepared, is fixed to the ground; the skeins are then undone, and the threads are extended to their full length. The comb, being drawn along to the end farthest from the first roller, prevents the threads from entangling, and retains them at the same distance apart at which they were secured to the first roller. The ends are then secured to the second roller; the practice of the workman enabling him to give an exactly similar amount of tension to every thread. The first roller is then wound round, and thus the warp for the fabric is prepared.

The weaver then takes himself and his apparatus, either to a shady spot under a tree, or to an open shed if he should be fortunate enough to possess one. He there fixes one of his rollers in clefts cut in posts a few inches high, and then partially unrolling the warp, he extends the threads horizontally, and secures the second roller in a similar manner to that in which he had already fixed the first. A hole being dug beneath one of the rollers, the weaver places his feet in it, seating himself on the edge. He then suspends above his head, at a foot or two in front of him, two pieces of bamboo, each one having half as many strings depending from it as there are threads in the width of his warp. If we might imagine these threads to be distinguished by odd and even numbers, it would be correct to say, that by means of loops in the dependent strings he then attaches all the odd-numbered threads to one piece of bamboo (*Anglicè*, a heckle), and all the even to another. Each of the cords which, passing over either a branch of the tree, or a beam of the shed, serves to suspend a bamboo heckle, having a loop tied to it, through which is passed the great toe of the weaver's foot, enables him, by alternating his pressure upon the loops, to raise or depress each alternate thread of his warp. He then prepares his shuttle, which is more like a long knitting-needle than an ordinary English shuttle, winding on it a length of the thread which he determines to make use of for his weft or shute.

Seating himself in front of his work, and pressing down one of the loops, so as to raise the odd-numbered threads above the even, he throws his shuttle from one side to the other, leaving a weft-thread behind: this thread he presses up to the bamboo roller with his long shuttle (thus superseding the use of the "batten"), and then raising his foot so as to release the tension of the first loop, and pressing on the second, he depresses the odd-numbered warp-threads, and raises the even-numbered. The crossing of

INDIAN KINCOB PATTERNS.

these two, of course, confines the weft-thread first thrown. The weaver then jerks back the shuttle, leaving another weft-thread behind, to be pressed up and confined in the same manner as the first; and thus by alternately pressing down the loops, and throwing the shuttle from side to side, the ordinary operation of weaving is carried on in India.

Pattern weaving, it must be evident, is produced by making a difference either in colour or texture, or in both, between the warp and the weft-threads, and causing one or other to predominate on the surface of the fabric. This is effected by increasing the number of heckles, and attaching the warp-threads to them in the succession necessary to vary the pattern, by allowing the shuttle at every throw to pass over and under the number only previously arranged to produce the required variation of pattern. As the weaver, when single-handed, can only work the heckles by the pressure of his feet, the range of patterns producible by one workman only must of course be limited. Any amount of elaboration may, however, be attained by increasing the number of heckles, and employing an assistant (the drawboy of the old English draw-loom) to elevate or depress them, in regular succession, between the throws of the shuttle.

When we reflect on the richness and beauty of patterns such as those we engrave, and generally on the variety and perfection with which every fabric, from the common cottons of Bengal to the KincoBs and tissues of Benares, the muslin of Dacca and the shawls of Cashmere, are executed throughout the whole of the Indian empire, we cannot fail to be impressed with admiration at the patience, ingenuity, and dexterity, with which the natives are enabled to produce such extraordinary results, with such wonderfully simple machinery.

The Benares cloth of gold has long been celebrated, and as large quantities are purchased by the wealthier pilgrims who visit the holy city from every part of India, its reputation has spread over the whole of the continent. Some of the richest and most beautiful of the Benares fabrics were exhibited by Baboo Deo Naryan and Gopinauth Debersaad.

The largest and most important of the patterns given in Plate XXIV. was produced at Ahmedabad, and is a portion of a square brocade which was contributed to the Exhibition by Mr. Copland, of London.

Up to the beginning of the eighteenth century, Ahmedabad was the centre of the prosperity which reigned in the province of Guzzerat, in the district of Bombay, under the old Mohammedan sway. The monuments, rich buildings, and commerce of the city, having been famous throughout the province of which it was the capital. On falling into the hands of the Mahrattas, who retained dominion over it until the beginning of the nineteenth century, it sunk into sad tribulation. The extortionate taxes and duties levied by the Mahratta chieftains almost entirely destroyed its manufacturing capabilities and its commercial relations. In 1818, when Ahmedabad came into the possession of the East India Company, successful efforts were made to foster its trade, and to develop its resources. Under the secure and just dominion of the Company, the manufacturer and merchant have been enabled to reanimate and to take advantage of the traditions of skill and beauty which had lingered in the old families, and there is little doubt that the charming pattern we engrave is but a revival of one of the old Mohammedan designs of the palmy days of the city.

We gather from the Official Illustrated Catalogue of the Exhibition a few particulars concerning the actual condition of the manufactures of Ahmedabad. It appears that the most important are three in number: silk and gold brocade, ribbons, and paper. Of the former, we learn that the constituent materials are derived,—the silk from China, Bassora, and Calcutta, the gold and silver thread from Ahmedabad itself, and the cochineal from England. It is estimated that not less than 40,000 rupees' worth of goods are annually consumed in the city and its surrounding district, and at least 300,000 rupees' worth are manufactured for the export trade. These goods are consigned, in India, to Bombay, Baroda, Poona, Gwalior, Hyderabad, and Rajpootana; and out of India, to Sindh, Cabool, Arabia, Persia, and China.

Of the ribbon trade, we learn that the raw silk is procured from China—the dye-stuffs (with the exception of indigo, the produce of Kandeish) through Bombay; that no less than 20,000 rupees' worth are consumed in the city and its district; and that 100,000 rupees' worth are annually forwarded to Baroda, Bombay, Rajpootana, Gwalior, and all parts of Guzzerat.

Of the paper trade, it appears that 20,000 rupees' worth are annually consigned to Bombay, and 15,000 to Baroda. The paper is made from hemp "tant," by means of 250 mills or pounding machines, worked by the feet of the inhabitants, of whom no less than 2000 are employed daily in the manufacture.





VICTORY, A STATUE BY MARBLE BY PAUL TOULOUSE-LAUTREC
HUNTON PRINTED AND PUBLISHED BY THE NEW YORK PUBLIC LIBRARY ASTOR LENOX AND TILDEN FOUNDATION

VICTORY,

A STATUE IN MARBLE, BY RAUCH OF BERLIN.

DR. FRANZ KUGLER, one of the most learned and original of modern critics of the Fine Arts, in sketching their future prospects,* has characterised the three influences which contend for supremacy in modern sculpture, as the Antique, the Natural, and the Romantic. The artist who would steer successfully between these apparently conflicting currents can only do so by availing himself in turn of the influence of each; and thus it is that those sculptors of the present day who, like Gibson and Rauch, read nature through the antique, not disdaining occasionally to take advantage of the resources of romantic composition, to heighten the human interest of their designs excite our liveliest sympathies, attain the greatest success, and achieve the noblest works. Thus it is that the last-mentioned artist, a friend and favourite pupil of Thorwaldson, has justly acquired a world-wide reputation in carrying on that emancipation from classical restraint which his great master commenced. By the introduction of historical portraiture, the individualities of life and romantic incident, into severe and monumental works, Rauch has testified how successfully productions of the highest class of art may be made available to record graphically to future generations the events of history, and the personal peculiarities and external forms of genius.

CHRISTIAN RAUCH was born on the 2d of January, 1777, at Arolsen, in the principality of Waldeck, and received his first lessons in art from the sculptor attached to that court. At twenty years of age he arrived at Berlin, where his talents soon procured him powerful and kindly patronage. In 1804 he was enabled to travel, and having first visited France, he betook himself to Rome, where for several years he laboured assiduously in the studio of Canova, and in that of Thorwaldson. The reputation which some of his works had acquired in Prussia, even at his then early age, led to his recall to Berlin, in 1808, in order that he might receive a commission for the monument of Queen Louise, then recently deceased. M. Fortoul remarks that, on his return to Italy, with the intention of there executing the principal figure for this tomb, "he found everything changed. In his first residence he had recognised the reproduction of ancient art, in the most exact and refined types. On passing the Alps for a second visit, he encountered Cornelius and Overbeck, who had already undertaken the restoration of the severest forms of Christian art. Notwithstanding his early impressions, he readily received those ideas which paved the way for a new phase of art."†

Without losing that exquisite appreciation of abstract beauty with which his studies under Canova had fortified his powers, Rauch succeeded in animating his productions with much of that enthusiasm which distinguished the theories and works of his above-named great contemporaries. M. Fortoul adverts with considerable judgment and discrimination to the evidence afforded by the various works of Rauch of his alternate yielding to these antagonistic influences. He remarks that the figure of Queen Louise, upon her monument at Charlottenberg, is a fine portrait, composed, modelled, and attired after the antique, but in which, at the same time, a true and feminine emotion pierces through the cold conventionalities of art.

* "Handbuch der Kunstgeschichte," 2d ed. chap. 22.

† These particulars of our artist's career are derived from the works of the Count Raczyński, "De l'Art en Allemagne, par Hippolyte Fortoul," the "Kunstblatt," the "Art-Journal," and other sources.

VICTORY.

The six winged Victories, which decorate the interior of the Walhalla, although designed with more freedom, and executed with greater vigour, preserve an essential resemblance to the artist's earliest mythological compositions. In two beautiful figures of the Danaides (a commission from the Emperor of Russia), there breathes a pure and genuine grief, expressed in a manner somewhat more human than that which the laws of classic art would recognise as within the restricted province of the sculptor.

One of the most remarkable qualities of Rauch is the power he possesses of infusing into his portrait-statues that ideality of expression with which he desires to impress the beholder, without sacrificing the individuality of personal appearance. Thus, in his celebrated statues of Scharnhorst, Bulow, and Blücher, he has indicated the leading characteristics of the military genius of those great commanders; giving to the first that calmness which is inspired by utter insensibility to danger; to the second, the energy which seeks the combat; and to the third, an aspect of desperate resolution, which feels, courts, and triumphs over danger. These figures, of which the two former are in Carrara marble, and the third in bronze, are placed opposite to the guard-house at Berlin, designed by Schinkel. Their pedestals are decorated with a series of bas-reliefs, which successfully illustrate the lessons derived by Rauch from the great master of that mode of expression,—Thorwaldson. Around the pedestal of the statue of Blücher the artist has embodied, in forms and with episodes of great beauty, the deliverance of the nations of Germany from the miseries of war.

M. Fortoul remarks that the romantic spirit displayed in these bas-reliefs becomes still more evident in the latter works of Rauch. His statue of Albert Durer, erected in 1840 on the principal *Place* at Nuremberg, is a noble rendering in bronze of those commanding features, and that sad, though intellectual expression, which the artist has preserved to us in those curious portraits of himself, which are still to be met with in some of the galleries of his native city. In the fine group, also in bronze, which was presented by the Count Raczyński to the cathedral of Posen, the sculptor has represented the two first Christian kings of Poland, Miceslas and Boleslas; and in the general arrangement of the subject and the treatment of the accessories, has worked rather in the style of the great Bavarian sculptor, Schwanthaler, than in that which we may regard as peculiarly his own.

The crowning work of Rauch's life is unquestionably the grand equestrian statue in which military Prussia has commemorated her great military hero, Frederick the Great. On this production the artist lavished every resource of his art, elaborating its details with all the enthusiasm of a student. Not content with his own capabilities of imitating nature, he undertook a voyage to St. Petersburg, in order to take lessons from a German artist, who had devoted himself exclusively to the analysis of the finest forms of the horse. Returning to Berlin, he entered deeply into the study of those conventions which Phidias and other sculptors of antiquity have sanctioned by their example, and, finally, composed a noble animal, worthy to bear the great hero of his fatherland. At the angles of the pedestal Rauch has represented four of the generals of the army on horseback, and between them are grouped other distinguished soldiers of the period. In these figures the artist has successfully resolved the much-debated question of the applicability of modern costume to the purposes of commemorative sculpture, redeeming, by the vigour of the action, and the intelligence of the heads, even the uncompromising rigidity of pig-tails and gaiters. It must have been a proud day for Rauch when, in the present year, this, his greatest work, was inaugurated, and when he received from the hands of his sovereign those honorary distinctions to which his merit as an artist had so eminently entitled him.

It is fortunate for Germany that Kiss, the favourite pupil of Rauch, appears to inherit much of the genius of his master—than whom few understand more profoundly the true conditions of the sculptor's art. It was our happy privilege, on being present at the first interview which, for very many years, had taken place between Rauch and Gibson, to hear those two great sculptors discuss the leading principles of their art, and compare their relative experiences.

It has been frequently remarked that that peculiar dignity and military grace which distinguishes the male statues of Rauch, appears to be an impersonation of the physical characteristics of the artist himself; whose noble figure and manly bearing, notwithstanding his advanced years, are truly remarkable.

The statue which we have engraved, and which was purchased by Her Majesty the Queen, is a *replica* of the original figure executed for the King of Prussia, and which now forms one of the most beautiful ornaments of the Royal Palace of Berlin.

VICTORY.

The six winged Victories, which decorate the interior of the Walhalla, although designed with more freedom, and executed with greater vigour, preserve an essential resemblance to the artist's earliest mythological compositions. In two beautiful figures of the Danaïdes (a commission from the Emperor of Russia), there breathes a pure and genuine grief, expressed in a manner somewhat more human than that which the laws of classic art would recognise as within the restricted province of the sculptor.

One of the most remarkable qualities of Rauch is the power he possesses of infusing into his portrait-statues that ideality of expression with which he desires to impress the beholder, without sacrificing the individuality of personal appearance. Thus, in his celebrated statues of Scharnhorst, Bulow, and Blücher, he has indicated the leading characteristics of the military genius of those great commanders; giving to the first that calmness which is inspired by utter insensibility to danger; to the second, the energy which seeks the combat; and to the third, an aspect of desperate resolution, which feels, courts, and triumphs over danger. These figures, of which the two former are in Carrara marble, and the third in bronze, are placed opposite to the guard-house at Berlin, designed by Schinkel. Their pedestals are decorated with a series of bas-reliefs, which successfully illustrate the lessons derived by Rauch from the great master of that mode of expression,—Thorwaldson. Around the pedestal of the statue of Blücher the artist has embodied, in forms and with episodes of great beauty, the deliverance of the nations of Germany from the miseries of war.

M. Fortoul remarks that the romantic spirit displayed in these bas-reliefs becomes still more evident in the latter works of Rauch. His statue of Albert Durer, erected in 1840 on the principal *Place* at Nuremberg, is a noble rendering in bronze of those commanding features, and that sad, though intellectual expression, which the artist has preserved to us in those curious portraits of himself, which are still to be met with in some of the galleries of his native city. In the fine group, also in bronze, which was presented by the Count Raczynski to the cathedral of Posen, the sculptor has represented the two first Christian kings of Poland, Miceslas and Boleslas; and in the general arrangement of the subject and the treatment of the accessories, has worked rather in the style of the great Bavarian sculptor, Schwanthaler, than in that which we may regard as peculiarly his own.

The crowning work of Rauch's life is unquestionably the grand equestrian statue in which military Prussia has commemorated her great military hero, Frederick the Great. On this production the artist lavished every resource of his art, elaborating its details with all the enthusiasm of a student. Not content with his own capabilities of imitating nature, he undertook a voyage to St. Petersburg, in order to take lessons from a German artist, who had devoted himself exclusively to the analysis of the finest forms of the horse. Returning to Berlin, he entered deeply into the study of those conventions which Phidias and other sculptors of antiquity have sanctioned by their example, and, finally, composed a noble animal, worthy to bear the great hero of his fatherland. At the angles of the pedestal Rauch has represented four of the generals of the army on horseback, and between them are grouped other distinguished soldiers of the period. In these figures the artist has successfully resolved the much-debated question of the applicability of modern costume to the purposes of commemorative sculpture, redeeming, by the vigour of the action, and the intelligence of the heads, even the uncompromising rigidity of pig-tails and gaiters. It must have been a proud day for Rauch when, in the present year, this, his greatest work, was inaugurated, and when he received from the hands of his sovereign those honorary distinctions to which his merit as an artist had so eminently entitled him.

It is fortunate for Germany that Kiss, the favourite pupil of Rauch, appears to inherit much of the genius of his master—than whom few understand more profoundly the true conditions of the sculptor's art. It was our happy privilege, on being present at the first interview which, for very many years, had taken place between Rauch and Gibson, to hear those two great sculptors discuss the leading principles of their art, and compare their relative experiences.

It has been frequently remarked that that peculiar dignity and military grace which distinguishes the male statues of Rauch, appears to be an impersonation of the physical characteristics of the artist himself; whose noble figure and manly bearing, notwithstanding his advanced years, are truly remarkable.

The statue which we have engraved, and which was purchased by Her Majesty the Queen, is a *replica* of the original figure executed for the King of Prussia, and which now forms one of the most beautiful ornaments of the Royal Palace of Berlin.



W 411 26

W 411 26

PRINTED MUSLINS BY DEPOUILLE & CO OF PARIS
MADE IN FRANCE

P R I N T E D M U S L I N S,

BY DEPOUILLY OF PARIS.

FROM time immemorial, the palm of excellence in all matters of fashion has been awarded to France. This long-established reputation has been well sustained by the elegant design and harmonious colouring of the patterns of printed muslins contributed to the Great Exhibition by Messrs. Depouilly; the history and progress of whose establishment afford a remarkable illustration of the difference between the steps which lead to commercial eminence in England and on the other side of the Channel.

Messrs. Depouilly were originally silk-manufacturers at Lyons; and the Jury of the Parisian Exposition of 1819 awarded to them in that capacity a gold medal for the excellence of their garment-stuffs, especially commending the novelty and taste of their productions. The quality of taste has always been regarded as a valuable item in the stock of commercial capital in France; but at the period referred to, we must acknowledge that its importance was but lightly estimated in this country.

In 1823, the medal previously gained by Messrs. Depouilly was confirmed to them, with flattering remarks by the Jury of the Exposition of that year; and the productions of their establishment acquired so much popularity with the Parisian public, that they were induced shortly afterwards to remove to Puteaux, in the department of the Seine, where they gave every variety of finish to woollen, cotton, and silk fabrics. They again received *rappels* of gold medals at the Expositions of 1830 and 1844.

The peculiar talent of Messrs. Depouilly for seizing and embodying the reigning taste, well fits them to excel in the immediate atmosphere of Paris. The productions which constantly emanate from their establishment, "catch as she flies the Cynthia of the minute," and faithfully reflect the fitful movements of French caprice. The term *Indienne*, used by the French to express the most popular form in which cotton-printing is allied to weaving, demonstrates with sufficient clearness the source from which has been derived the art of applying dyes in patterns to goods of a uniform colour.

For many years previous to 1785, printing on cotton had been successfully carried on in England, France, and Germany, but it was not until that year that the principle of copperplate printing, viz. obtaining the impression from indented lines instead of from a surface in relief, was adopted.

In 1789 the celebrated Oberkampf was encouraged by Napoleon to establish a printing-factory at Jouy; and that circumstance led to the congregation in Alsatia of a considerable number of manufacturers, who pursued a growing and lucrative business with great energy and talent. The name of Daniel Koechlin, of Mulhausen, may be regarded as that of the patriarch of French calico-printing. To his skill we are indebted for many scientific applications of discharges, resists, mordants, &c., upon the details of which it is impossible to enter in the present notice. To trace the progress of cotton-printing, as recorded in the annuals of successive Expositions of Paris, is, in fact, to find a continued iteration of the name of this great man, who has been worthily called the James Thompson of France. Around Koechlin were grouped many men whose names are classical in the records of French industry,—Gros Davillier, Roman and Co.; Dollfus Meig and Co.; D. Schlumberger and Co.; Hartmann and Co.; and Zuber and Co., may be especially noted as having distinguished themselves in the incipient stages of the manufacture.

PRINTED MUSLINS.

The business of calico-printing was early carried on at Rouen, to a great extent—principally through the exertions of M. Henri Barbet—and an extraordinary impulse was given to it in 1835 by the inventions of M. Perrot; but the productions of that locality have never equalled those of Alsatia, or the department of the Seine. The machine invented by M. Perrot—a species of automaton cylinder printing apparatus—speedily obtained great success, and led to a vastly increased production, not only at Rouen, but in the other districts where the trade was carried on.

It has been justly observed by M. Blanqui, that “Alsatia is a model manufacturing country; machine manufacturers, spinning, weaving, printing establishments, all are united there. It is the land of mechanists, designers, and chemists. Nowhere are dye-stuffs more skilfully used than in that district: nowhere are dyers’ weeds, madder, cochineal, orchil, &c., applied with more brilliancy or fastness. It is to Alsatia that Europe is indebted for its partiality to those light and graceful fabrics which nowadays decorate, at such small cost, all dwellings, and which so economically clothe all women.” It has been equally well remarked by Mr. Ward,* that while, in England, the science of printing has become one of the most beautiful and refined applications of chemical art, and while the attention of manufacturers appears to have been directed almost exclusively to durability and cheapness, the study of design has been to a great extent eclipsed by sterner commercial requirements. “France,” he remarks, “has studiously cultivated the art of design, and advanced its professors to the rank of gentlemen. In England, on the contrary, with some exceptions, it has been degraded to a mechanical employment, and remunerated at weekly wages. France has, in consequence, a species of industry to which we have no claim—the production of designs for exportation. The demand for the latter is considerable, and has been rapidly increasing. Small as is the print-trade of France compared with that of England, there are in Paris ten times the number of pattern-drawers that are to be found in London, or in Manchester. Some of these establishments are considerable, and employ from ten to fifteen designers each: and a talented designer receives from 8,000 to 10,000 francs a-year—more than twice the sum paid to similar talent in this country.”

Great efforts are, however, being daily made to establish better educational principles in matters of art-manufacture, and to promote that recognition and expression of beautiful forms which can alone lead to excellence of production. Manchester and Paisley, by the beautiful fabrics they contributed to the Great Exhibition, have, however, given us convincing grounds for belief that the day is not far distant when English muslins may be found as original and graceful in form, and as tender in colour, as those of Messrs. Depouilly.

* “The World in its Workshops,” p. 243.



M. DIGBY WYATT, DIRECTOR

J. MAHONEY, LITHOGRAPHER

VASE IN SILVER, BY HUNT & ROSKELL OF LONDON.

LONDON, PRINTED AND PUBLISHED JANUARY 1ST 1853, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

VASE IN SILVER,

BY HUNT AND ROSKELL OF LONDON.

It is gratifying to be enabled to recognise the fact, that the productions of the successors to the late well-known firm of Storr and Mortimer equal at least, if indeed they do not far surpass, the most remarkable objects, the perfection of which made the reputation of the original house. In point of intrinsic and monetary value, the display made by Messrs. Hunt and Roskell was probably unique in the whole of the Great Exhibition, since it was one which required to be valued by hundreds of thousands of pounds, rather than by thousands only.

Among all the gorgeous objects upon the elaboration of which such almost countless sums had been lavished, there was none which, as a pure specimen of the highest art of sculpture in the precious metals, could excel the beautiful Vase given in the Plate we are now describing. Those connoisseurs who are deeply learned in the manipulative processes of metal-working cannot but appreciate with pleasure the exquisite character of the *repoussage*, and the perfection with which Benvenuto's great stumbling-block, the *saldatura*, has been overcome and concealed. To the practical student and art-workman this Vase alone would afford an admirable text for a lesson, since it perfectly illustrates the appropriate introduction and treatment of every variety of relief and modelling, and the most refined handling of the graver and chasing-tool.

To the artist and designer, the hints it should afford are scarcely less important, since it evidences how easily the greatest boldness and movement in design may be allied to the purest and most severe bounding forms; and how much life and animation the contrast imparts to those portions to which the eye of the beholder should be first conducted. Its composition may also be especially commended, as evincing the purest taste and vigorous imagination allied to a just recognition of the Utilitarian purpose of the object. Thus the structural conditions of a vase are never lost sight of—the handles are real handles, by which the vessel can be lifted—the lid is a real lid, which can be taken off—and that contour which, by association of ideas, we look for in a similar object, is rigidly preserved. Yet, with all this attention to Utilitarian requirements, the highest art has been made subservient to the powerful embodiment of one of the most grand and awful passages of ancient tradition. The Vase and its lofty theme are thus described in a Catalogue of their contributions to the Great Exhibition, published by Messrs. Hunt and Roskell:—

“The Vase” (say they) “is of Etruscan form, embossed from thin sheets of silver, in the highest and lowest possible relief. The subject, which is treated in the style of Michael Angelo, is the destruction of the Titans by Jupiter, who made war upon them for having imprisoned his father Saturn. The giant sons of Cœlus and Terra, seeking to revenge the death of the Titans, made war on the Gods, heaped rock on rock, mountain on mountain, ‘Ossa on Pelion piled,’ in order to reach heaven. Jupiter routed the foe, who were crushed under rocks and mountains. On the summit of the cover is Jupiter, who, with stern and angry looks, grasps thunderbolts, which he hurls on the presumptuous Titans below. Bordering the cover is the Zodiac circle, in low relief. On the body of the Vase, on each side, are groups of giants—some climbing upwards, some crushed by the rocks hurled by the mighty Jove. Supported by the handles of the Vase, two bold, presumptuous giants stand out in full relief, vainly menacing the father of gods and men. On the foot are fallen distorted figures, representing Vice and Presumption writhing in the agonies of death.”

VASE IN SILVER.

“On the neck of the Vase, in low relief, are two figures, representing Time and Fate; the former with his scythe, the latter grasping serpents. Among the representations in low relief may be recognised Satyrs and Bacchanals in bowers of vine; Neptune in his chariot, drawn by sea-horses, hurling thunder-bolts at the giants, who are casting rocks at him; flies and grotesque insects writhing in a spider’s web, alluding to the fate of Arachne. Below one of the handles is Pan; beneath the other a skeleton. Crocodiles, winged monsters, fiery dragons, and other fabulous monsters of sea and land, wage war with one another.”

It is to be regretted that Messrs. Hunt and Roskell have not appended to their description some notice of the Artist by whom this most noble piece of work has been designed and executed—more particularly since, if we are rightly informed, it is the production of one whose name among cunning artificers has passed into a proverb. To say that a man can chase metal-work like Vechte, would be to place him at once upon a footing with Cellini, Caradosso, Van Vianen, Wagner, Mertins, Ballin, Briot, and Dassier—so many of the finest qualities of these masters does Vechte unite in his own person. Who that examined the extraordinary, unfinished shield in silver and iron, truly “a specimen of art and embossing,” dedicated to Shakspeare, Milton, and Newton, could fail to recognise in that the mind and handicraft of the most accomplished artist?

It is infinitely to the credit of Messrs. Hunt and Roskell, that they are devoting their capital and energies to securing the execution of what must always be regarded as one of the most exquisite specimens of the silversmith’s art ever produced; and it is to be equally regretted, that neither the Vase we engrave, the Shield we mention, nor some other grand work of a similar high class, were included in the liberal purchases made by the princely Goldsmiths’ Company.

As we shall have occasion, in the course of this work, to notice other objects, over the production of which the genius of Vechte has presided, we shall hope to be enabled to afford some information respecting the life and principal works of this celebrated artist.



SCARF-END FROM CASHMERE.

As a specimen of the harmonious blending of deep-toned colours, and an agreeable departure from the somewhat too inevitable "tail"-pattern of three-fourths of the shawl fabrics woven at the present day, we feel confident that the merits of the object engraved will be immediately recognised. However beautiful in execution many of the drawings for shawls contributed to the Great Exhibition, by French and English artists, may have been, it was impossible not to have been struck in them by the absence of many of the excellencies which characterise the majority of the Oriental productions.

The valley of Cashmere—the ancient Caspira—has so long been celebrated for its shawls, that the manufacture of that beautiful article of costume, so highly esteemed by Oriental nations, is by some writers believed to have originated there. Possessing unequalled fineness, delicacy, and warmth, the shawls of Cashmere have always maintained the highest estimation in every market of the world; and the choicest examples of them have realised, as is well known, almost incredible prices. Although numerous authors have dwelt in detail upon the subject of the manufactures of Cashmere, considerable difficulty would be experienced by any one who, by going through their writings, should attempt the task of realising for himself a clear idea upon the subject. This difficulty would mainly arise from the fact that he would find his authorities somewhat at variance. The occasional misapplication of a technical term, and the frequently evident want of a right apprehension of the mechanism of the loom, serve to render the meaning of many passages so questionable or obscure as to tend practically to confusion, rather than to explanation. It is, therefore, with some mistrust that we proceed to offer the following remarks, which have for the most part been condensed from the authorities given beneath.*

It must be manifest that every successful production of art-manufacture must exhibit a satisfactory conjunction of three ingredients, — good and fine raw material,—tasteful design,—and skilful and finished execution. In noticing Cashmere shawl fabrication, one of the highest orders of art-manufacture, we shall, therefore, dwell upon each of those ingredients in succession, taking up the two former in the present article, and the latter on a subsequent occasion.

The wool of which the shawls of Cashmere are composed is the cotton-like down, or inner hair, of a species of goat which abounds in the vast plains of Thibet—a cold, dry table-land to the east of Cashmere. The wool which is manufactured in Cashmere into woven fabrics is of two kinds: *pashm shal*, or shawl-wool, the produce of the tame goat; and *asali tus*, or the fleece of the wild goat, the wild sheep, and other animals, including the *yak*, a species of ox, and even the dog of Thibet. Attempts have been often made to rival the shawls of Cashmere, but even when the genuine shawl-wool has been employed, these efforts have not succeeded. The most remarkable endeavours of this nature have been made in various districts of the continent of India, but with what success the following passage from Mr. M'Culloch will testify:— "It must be admitted," says he, "that shawls have nowhere been made that can come, as respects quality, into successful competition with those of Cashmere. *The manufacture has been established at Delhi and Lahore for some years; but notwithstanding it is carried on by native Cashmerians, and although the material employed*

* M'Culloch's "Dictionary of Commerce," article *Shawls*; Hamilton's "Description of Hindostan; Vigne's "Travels in Kashmir;" Moorcroft's "Travels in the Himalayan Provinces of Hindostan and the Punjab;" Thornton's "Gazetteer of the Countries adjacent to India;" Karl Freiherr Von Hugel, "Kaschmir und das Reich der Siek." 8°. Stuttgart, 1840; "Dictionnaire Universel du Commerce," &c. Paris, 1851. (Articles "Chales et Laines"); "The Official Illustrated Catalogue," &c. &c.

SCARF-END FROM CASHMERE.

be quite the same, the fabrics are said to want the fineness of those made in Cashmere, and to have a degenerated and coarse appearance. This superiority has been ascribed to some peculiar quality of the water in the valley of Cashmere; but it is most probably owing to a variety of circumstances, which, though each may appear of little importance, collectively give a character to the manufacture."

Napoleon imported goats from the East into France; but these were not, as has been stated, of the Thibet breed; being brought from Talish, on the western bank of the Caspian Sea. The Cashmerian goat has been bred in England by His Royal Highness Prince Albert (who exhibited specimens of the wool, and of fabrics made from it), and by Mr. Power, of Weald Hall, Essex; but there is reason to believe the real Thibet goat would in this climate yield but a comparatively small quantity of that peculiar down, or shawl-wool, which constitutes its natural provision against the intensely cold and piercing winds of its native region.

From the plains of Thibet the wool is conveyed to Rodokh (or Rudak), on the backs of sheep of a peculiarly large breed. Rodokh is the principal rendezvous of the wool-merchants, who convey the material from thence to Leh (or Le), the chief town of the province of Ladakh, where it is purchased by the merchants of Cashmere, and carried to the seat of the manufacture on the backs of men and horses. The value of the wool annually imported for shawls alone, is stated by Hügel at 34,000*l.* One goat produces two pounds of wool annually; and besides the distinctions of quality already mentioned, the material is sorted, according to the colour of the animal producing it, into white, and dark, or ash-coloured; the former for plain, and the latter for dyed fabrics. One-third of the whole is of the latter description, and whilst the white wool was worth at the time of Vigne's visit to Cashmere about 4*s.* a pound, the dark wool was only half that price.

The wool is first separated from the short hairs of the animal,—a process which greatly reduces its quantity. Vigne states that "one-fourth only of the quantity bought is fit for weaving." It is then cleaned by washing; in which operation rice-flour is used as an abstergent, instead of soap. The wool is then spun by the hands of women, whose toilsome occupation only enables them to earn a sum equal to 2*s.* 6*d.* a month. The yarn is next dyed; and in this part of the manufacture, which is preserved hereditarily in particular families, great ability is displayed. About forty different tints are generally used (although the dyers offer to supply no less than sixty-four); some of these are obtained by extracting the colours of European woollens. Thus, the ordinary baize of England supplies some of their finest greens, and also a light blue. The fine pale yellow colour of a new shawl is given after weaving, by exposing it to the fumes of sulphur. The yarn, when dyed, is dipped in rice-water, to strengthen it, and render it fit to sustain the rapid motion of the shuttle. The shawls are always woven in pairs, and the thread for a large pair weighs fifteen or twenty pounds. Hamilton states that when a merchant enters upon this trade, he engages several shops or looms in one spot, so as to be under his own inspection; sometimes he adopts the plan of giving out the thread to work-people, who carry on the manufacture at their own homes.

We gather from the report of the Sub-Committee appointed to investigate the subject of the varieties of Cashmere shawls, proper to be exhibited, some interesting particulars in relation to the ordinary designs for the finest kinds. It appears that they are regularly classified and priced; and that the *Doshallas*, or long shawls, which are invariably manufactured and sold in pairs, are divided into regular classes, such as the Khale Mitton, or plain-field shawls; the Poor Mitton, or full-flowered fields; and the Chaud Dar, &c., which are more irregular, and consist either of a moon or circle in the centre, four half-moons, green sprigs on a plain ground, a group of flowers at the corner, or any combination of these. The principal colours are white, black, crimson, scarlet, purple, blue, green, or yellow. Fine long shawls, with plain fields of handsome patterns, are procurable at about 1200 rupees per pair, and full-flowered at about 1500 rupees. It appears from Moorcroft's account, that the design is drawn in black and white only by a man called a "Nakash," or pattern-drawer, and is by him brought to the overseer of the works, who carefully studies and determines the various colours of every portion of it. Beginning at the foot of the pattern, he then calls out the colour and the number of threads to which it is to extend, that by which it is to be followed, and so on in succession, until the whole pattern has been described. From his dictation the particulars are written down in a kind of short-hand, and a copy of the document is given to the weavers.

Thus it is that preparation is made for the actual operations of manufacture, a portion of the subjects upon which we trust to be shortly enabled to enter.



SCULPTOR DEL. ET SC.

W. D. Wyatt
 W. DIBBY, WYATT, & REED

CHERUB AND PANTHER BY RICH THOMAS OF VIENNA
 ENGRAVED AND PUBLISHED BY W. DIBBY, WYATT, & REED, 15, SOUTH-WALK, LONDON.

CUPID AND PANTHER,

A BAS-RELIEF IN MARBLE BY RIETSCHEL OF DRESDEN.

THE illustration of the old motto, "Amor vincit omnia," was a favourite subject among the artists of antiquity; and many a sculptured gem and faded wall-painting still bear testimony to the power of those emotions which made the traditional "King Cophetua wed the beggar-maid." As if, however, to prove that every "yea" must have its "nay," Rietschel, in the design we now engrave, has shown to what miserable straits the little God may be supposed to be occasionally reduced.

Pretty and trifling as may seem the fancy which is superficially expressed in this bas-relief, we cannot doubt,—knowing the spirituality of the artist's nature, and his attachment to Ludwig Tieck and Moritz Retsch,—that it was his intention to enforce a more pregnant moral.

In the poor unfortunate Cupid, who has allowed himself to be seduced to mount the beast he cannot manage, we may read a bitter satire on the miserable fate of those who excite passions which they cannot control, and attempt to conduct undertakings for which their nature incapacitates them; or, perhaps, we may fancy that the artist merely essayed to depict the torments of the lover, when borne away by imperious passion, and completely abandoned to the fierce and wild career on which the fever of his blood has urged him.

Irrespective, however, of its merit as a work of illustration, it is impossible to refrain from according to this production the highest possible praise for the freedom and excellence with which the composition has been wrought out. The terror and childish prostration of the Cupid, the lunging movement of the Panther, the texture of the flesh contrasted with the shaggy coat of the animal, and the free and vigorous spirit of the general execution, all bear testimony to the artistic skill displayed by this great master.

It is truly fortunate for Rietschel's English reputation, that the three works which he contributed to the Great Exhibition should differ so widely in character. In the beautiful subject of the "Christ-Engel" (Plate V.), we have ample evidence of his power of expressing seraphic grace and the beauty of repose. In his "Pieta," a far more severe style of composition and handling is adopted; and as an embodiment of that most difficult theme,—expressing the awful agony of a scene too painful to dwell upon with feelings other than of deep emotion,—it may be regarded as conveying more religious sentiment than any other modern representation of the same subject. In the "Cupid and Panther," the vivacity of imagination, and the ornamental and pleasing treatment of the subject, prove that Rietschel's sympathies with the lively and elegant department of his art are as strong as with its most serious forms.

In the notice appended to Plate V. we briefly enumerated the leading works in which the genius of this artist has been developed. Those only, however, who, besides those productions, have had an opportunity of inspecting his beautiful portrait-busts, his minor works in single figures and bas-reliefs, and the compositions which exist only in his drawings and models for every variety of work, can fully appreciate the extent and diversity of his talents.

It is gratifying to be enabled to state that Rietschel's two charming bas-reliefs have been retained in

CUPID AND PANTHER.

this country; the "Christ-Engel" having been purchased by Mr. I. K. Brunel, and the "Cupid and Panther" by Lord Charles Townsend.

Although the number and importance of the works produced by our artist would warrant the supposition that he had devoted to the cultivation of his art more years than ordinarily fall to mortal lot, he is in fact still young. This circumstance renders it the more sad that the state of his health is such as to fill his friends with the liveliest apprehensions, and he has consequently been strongly urged to seek its restoration by a residence in Italy. Should it be decreed that his days are no longer to be spent in the practice of that elevated art of which he is already so great an ornament, there will be a mournful interest in the fact that his latest productions were contributed to the Great Exhibition.



F. SMALLFIELD DEL.

M. DICBY WYATT, DIRECT

F. BEDFORD LITH.

BLACK LACE FOUNCE (NOTTINGHAM MANUFACTURE) BY GREASELY & HOPCROFT.

LONDON, PRINTED AND PUBLISHED JANU 15TH 1852, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

BLACK LACE FLOUNCE,

BY GREASLEY AND HOPCROFT, OF NOTTINGHAM.

AMONG the numerous exquisite specimens of design, as applied to lace fabrics, which were collected in the Great Exhibition, there was scarcely one to be found in which simplicity and an appropriate treatment of form were so happily combined as in that we now engrave. Lace, as a material, is obviously best displayed when the openness of the ground permits the surface over which it is worn to be distinctly seen through the meshes, so as to assist in relieving or "throwing up" the flowers or ornaments worked in the net. Too frequently in designs, both for English and foreign production, this principle of contrast between the ground and the pattern, is overlooked. Scroll-work, shells, and every description of enrichment, are heaped together so as to completely cover the original transparent field; rendering the work unnecessarily full and *tourmenté*, and converting what should be the lightest and most ethereal of textile fabrics into an apparently heavy and cumbrous substance, which serves only to hide, instead of to decorate, the surface it covers.

Another defect in design which occasionally renders valueless some of those productions which, for extraordinary minuteness and patient industry, might rival the celebrated labours of Arachne, consists in the ambitious attempt to introduce direct imitation of objects unsuited to be reproduced by the technical processes of manufacture. Thus we have too often been called upon to sympathise with abortive attempts at portraiture, and at the uncomfortable delineation of landscapes by the contorted bobbins of the lace-maker, and the ambitious needle of the embroideress.

From such defects Messrs. Greasley and Hopcroft's flounce is entirely free; and it may be regarded as offering a pleasing illustration of the kind and amount of conventionality in ornament appropriate to the conditions and uses of the material in which it is executed.

Most of our readers are no doubt aware that English lace is of three kinds,—Pillow-lace, or entirely hand-worked; Bobbin-net, or machine-made lace; and Run-lace, which is a combination of machine and hand-work. The first we shall notice in illustration of one of the beautiful products of Honiton, in Devonshire, and the second, in a subsequent article on Nottingham ingenuity. As the object now engraved belongs to the third kind, we shall confine our remarks at present to "run-lace," and its fabrication, a branch of trade almost entirely carried on at Nottingham.

The ground of the article is machine-made, inasmuch as it consists generally of a piece of plain bobbin-net, with a regular mesh made—if white, of cotton thread; if black, of silk. The piece of net, unbleached or dyed, is passed through a machine known as the "gassing-machine," by means of which it is exposed while drawn along rapidly to the action of a great number of small gas-jets, the flame of which serves to singe off all loose filaments which would otherwise tend to make the net look coarse and indistinct. It is then strained down flat, and printed by means of engraved wood-blocks, with the outline of the object intended to be made, whether collar, cape, veil, berthe, &c., and with the general form of the pattern proposed to be embroidered, or "run in" upon it. This work, which involves, or should involve, a considerable amount of artistic ability, is generally sent out to be executed by a class of persons (distinct from the manufacturers)—a species of quasi-artists, whose studies are divided between the fine arts on the one hand, and the most

BLACK LACE FLOUNCE.

business-like attention to the fluctuations of fashion, which constitute what are known commercially as the "prevailing styles," on the other.

We now come to the actual handwork portion of the process, and feeling the excellence of the description of it given by Mr. George Dodd,* we transfer it to our pages. It is remarked that, "when the stamper has imprinted on the net the outlines of the device, a 'pattern-setter' decides on the manner in which the pattern shall be filled up. For instance, if a leaf form part of the pattern, the stamper only gives the outline of the leaf, and it rests with the pattern-setter to determine how the needle of the embroideress shall fill up the device." We must next transfer our attention to one of the humble homes of the numerous and lowly-paid 'lace-runners.' The term 'embroidery' does not seem to be much used in connexion with the Nottingham lace trade, most of those who work on net with the needle being termed 'lace-runners.' Each workwoman has a frame, on which the net is stretched out horizontally, at a height of about three feet from the ground. She sits on a stool or chair, places her left hand under the stretched net, to keep it in a right position for working, and with her right hand works the pattern with needle and thread in every part where the stamper has imprinted a device. The needle is inserted between and among the meshes of the net, and stitches of greater or less length taken, until there is a body of thread laid in sufficient to mark the device conspicuously. This working round of the outline is called 'running;' while the filling up of the interior parts is termed either 'fining' or 'open working,' according as the original meshes of the net are brought to a smaller or larger size by the action of the needle. How, by the work of the needle, the meshes of the net may be made larger or smaller will be easily comprehended by the one sex, and must be taken for granted by the other.

"The mode in which this embroidery business is transacted is often thus:—A person takes from a manufacturer as much work as twenty, or perhaps fifty, females can embroider, and she devotes as many rooms as her house can afford to the reception of the workers, who pay to her a trifling sum (out of their trifling earnings) for the use of the room. They all receive their work from the person who rents the house, who pays them for their labour, deducting a rent for the frame-room, and a further trifle for some other item. To eke out their earnings, the women in one room often have their meals in common, making up, for a few pence, a hash or stew sufficient to dine seven or eight. There they sit for twelve or fourteen hours a-day, with the head stooping over their work, plying the needle."

On leaving the hands of the lace-maker, any accidental tears or faults in the net are made good by an extremely skilful set of workwomen, whose needles imitate the most complicated meshes produced by the machine. The work is then cleaned, bleached, or dyed, and dressed, *i.e.* rubbed with a composition of gum, paste, &c., to give a certain amount of stiffness, varying according to the purposes of the object. Each article is then cut out of the piece of plain net, the cutter being guided by the outline marked by the stamper, and an edging sewn on to prevent the threads from unravelling. The articles are, lastly, examined, sorted, pressed, ticketed, and packed, and are finally consigned to the merchant's hands.

The veil engraved is a specimen of black silk run lace, manufactured in the manner above described.

"The Times" of Dec. 8, 1851, contains some remarks on the history and present state of that branch of trade, so pungent and pertinent, that we cannot conclude our notice better than by reproducing them, expressing at the same time our earnest hope that the hint they convey may not be lost upon the good citizens of Nottingham:—

"The new and large manufacture of black silk lace sprang into existence some four years ago, and it was thought had become a branch of trade. Those who first engaged in it produced the best class of goods possible, and by so doing beat the continental manufactures out of nearly every market, both for excellence and cheapness. This accomplished, a system of adulteration and depreciation commenced on the part of rival manufacturers at home, which has been carried to such extremities as seem calculated, if not abandoned, to annihilate the manufacture altogether. First, inferior silks were used, to enable them to undersell manufacturers of the legitimate article; and latterly they have actually been working the warp of fine cotton, and even some of the bobbins; deceiving purchasers by putting little more silk into the goods, than merely covering the thick threads which form the figure with that material. This method of adulteration has brought prices down from 1s. 6d. per yard of four inches wide to 4d., and other widths in the same proportion. If this system be not discontinued, our manufactures will shortly grow into disrepute in all the best markets of the world. The plain net manufacturers adopt a wiser course, scarcely any instance of such disreputable competition and adulteration occurring among them."

* "The Textile Manufactures of Great Britain," by George Dodd, p. 224. London, 1851.



H. HIDEKUN-DEL.

W. H. WATTS-DESIG.

W. H. WATTS-LITH.

VASE IN CHINA FROM THE ROYAL MANUFACTORY AT SEVRES
(VASE RIMINI)

LONDON, PRINTED AND PUBLISHED BY W. H. WATTS, 15, MARK LANE, AND BY J. H. COOPER, 10, ST. MARTIN'S LANE, W. 1844.

PLATE XXXI.

VASE,

FROM THE ROYAL MANUFACTORY AT SÈVRES.

THE general character and form of this object appear to have been derived by its skilful designer, M. Dicterle, from some of those beautiful Majolica vessels which, during the sixteenth century, ministered at once to ornament and utility, in containing the drugs dispensed at the pharmacies of Venice, Florence, Padua, &c. As we have seen in our notice of Mr. Minton's vase (Plate XI.), the Italian objects referred to were fabricated in a somewhat coarse earthenware *body*, for which, in the Sèvres manufactory, that exquisite composition, the precise admixture of which has long engrossed the attention of French chemists, has been substituted. The results of this substitution may be naturally inferred. The perfect purity and compactness of the *service*, as it is called, in the Sèvres manufacture, not only counteract the tendency to twist in firing which is manifested in earthenware, but afford a much more brilliant ground for subsequent decoration. The intense whiteness of the objects now produced at Sèvres, is so great as to reflect light through every colour applied upon them, and thus a clearness and transparency are given to the tints laid on, which far surpass any that it was in the power of the Italian painters to obtain on their comparatively dull material.

In the remarks which accompanied Plate XI. an attempt was made to trace the progress of Italian pottery to the end of the sixteenth century. Towards the middle of that century a series of experiments had been successfully carried out in France, through the activity and indomitable perseverance of the celebrated Bernard de Palissy,*—on the composition of earthenware; on the application of opaque coatings; on the varieties of transparent enamel colours proper for painting on china; and on the best methods of preparing vitreous glazes, with a view to protect the opaque, and enhance the brilliancy of the transparent colours. The labours of Bernard de Palissy, and Leonard de Limousin the great reviver of the processes of the ancient Limoges enamel, laid the foundation for that facility with which the earliest French painters on china enriched their works with the most varied colours.

In our notice of Plate XIV. we indicated the various steps by which the manufacture of soft porcelain, or *pâte-tendre*, was carried to its perfection; and we shall now, in a similar manner, endeavour to trace the progress of the *pâte-dure*, or hard porcelain.

The *body* of the Oriental china which, about the commencement of the sixteenth century, began to be imported into Europe by the Dutch and Portuguese, presented the perfection of *pâte-dure*, and many efforts were made to discover its ingredients. After considerable labour it was found to consist of a fusible clay, known in China as *kao-lin*, a substance which has preserved the same name in Europe; and of a material called *pe-tun-tsé*, which is decomposed feldspar. The glaze or covering known in China as *yen*, was compounded of a choice and finely-powdered feldspar, and a small quantity of *che-kao*, a species of gypsum, together with some other matters, but never with the addition of either lead or tin.†

* We can scarcely direct our readers to a more interesting piece of autobiography than that of this extraordinary individual; who has recorded in most graphic terms the intensity of his opinions on subjects of every description, and the remarkable acts to which his strong convictions impelled him. *Œuvres de Bernard de Palissy, publiées par Faujas de Saint-Fond, Paris, 1777.*

† Brongniart, "Traité des Arts Céramiques."

M. Labarte informs us,* that although at an early period the raw materials were imported from the East, they always arrived in a state of fine powder. Upon the composition of this powder some light was thrown by the information collected in China by the celebrated Jesuit, François Xavier d'Entrecolles.† It was, however, reserved for European chemists to recognise the materials and the proportions in which they were mingled; and, above all, the sources from which similar materials could be procured. Many *savans* attempted to resolve this problem; but it was only under the auspices of Frederick Augustus the First, Elector of Saxony, at the commencement of the eighteenth century, that the desired result was obtained. The celebrated Böttcher was born on the 4th of February, 1682, at Schlaiz, in Voigtland.‡ His earliest studies in chemistry were directed, as was usual at that period, to the mysterious refinements of the transmutation of metals, and the composition of elixirs; and the fame he had acquired at an early age for his knowledge on these subjects, caused him to be brought to Dresden, and placed, in association with the distinguished chemist Walter de Tschirnhaus, in the Royal Laboratory. Thus installed, Böttcher turned his attention to the production of porcelain; and, in 1708, he attained complete success in the fabrication of the celebrated red-ware known to collectors by the name of its inventor. This material is not strictly a porcelain, but rather an extremely perfect red earthenware. It was at this period that accident led to the discovery which had defied the labours of generations of students. Jean Schorr, a tradesman, in riding at Aue, near Schneeberg, remarked that his horse trod into a soft, white earth. Struck with its appearance, he reduced some of it to a powder, and successfully introduced it at Dresden as a substitute for the flour then in use for the immense *perruques* commonly worn. Böttcher's servant employed the new powder one day in dressing the wig of his master, who, remarking that it was unusually heavy, questioned his domestic as to the origin of the powder. Learning that it was an earth, he examined the material minutely, and to his great delight discovered that it was no other than the long-sought material, kaolin. Availing himself of this discovery, Böttcher produced, in 1709, a perfectly white and transparent porcelain, possessing all the characteristics of the Chinese. His success led to the formation of the celebrated establishment at Meissen, from which the principal Courts of Europe were long supplied with imitations of Oriental china. For a length of time every effort was made to keep the material and the processes secret; but, in spite of every vigilance, it gradually extended into the different countries of Europe. In 1720, Stöbzel, foreman of the works at Meissen, succeeded in reaching Vienna, and establishing in that town the celebrated manufactory which has ever since remained under Imperial patronage.

At this period, as we have shown in our notice of Plate XIV., the French chemists, aided by the important investigations of Réaumur, had arrived at a beautiful imitation of china, by means of the artificial *body* known as *pâte-tendre*. In 1761 the French Government made a contract with Pierre Antoine Hannong, of Strasburg, for the acquisition of a knowledge of the Saxon processes, but with little beneficial result to France, as the primary ingredients were wanting. In 1765, Guettard discovered a locality near Alençon, from which both kaolin and feldspar could be procured. From some imperfection, however, he was unable from these materials to fabricate a white porcelain; all the specimens of his execution being distinguished by a grey tint. Chance, however, coming again to the assistance of science, brought to light the source of an abundant supply of the greatest purity. Madame Darnét, the wife of a surgeon of Saint-Yreix, having remarked in a ravine in the neighbourhood of that town a peculiar white earth, fancied that it might supply the place of soap in washing. Her husband, who had probably heard of the demand for china-clay, took some small quantities of the earth to a druggist at Bordeaux, by whom they were forwarded to the celebrated chemist, Macquer, who immediately recognised in them the much-wished-for kaolin.

After having verified, in 1768, by a series of conclusive experiments, the importance of the supplies obtainable from Saint-Yreix, Macquer established the fabrication of hard porcelain at Sèvres, where it was soon carried on with great activity. From that period the manufacture of *porcelaine dure* and *porcelaine tendre* were conducted together in the royal establishment, until 1805, when the latter was entirely superseded.

In a subsequent notice we shall offer a few remarks on the recent history and productions of this celebrated manufactory.

* "Description des Objets d'Art qui composent la Collection Debruge Dumenil." Paris, 1847.

† "Treatise on the Origin, &c. of the Manufacture of Porcelain and Glass."—*Lardner's Cyclopaedia*, vol. xxvi. p. 9.

‡ *Vide* Dr. Gustav Klemm, "Die Königlich Sachsische Porcellan und Gefasse-Sammlung." Dresden.



POZZI, DEL

W. BIGNY WATTS DIPS.

FED. O. M. T. M.

SPECIMEN OF INDIAN LAC-WORK

INDIAN LAC-WORK.

IN our notice of Plate II. we gave a short description of *lac*, and the various processes of its application to purposes of commerce, reserving for the present article a few observations on the knowledge of art displayed by the Oriental designers of objects in that material.

A pattern in which two colours only are employed to contrast with one another, affords a more ready illustration of the principle upon which such compositions should be based than one in which the combinations are complicated by the graduated intensity of several tints. It was for this reason that we preferred to illustrate the artistic principles applicable to our present subject by a simple object, such as that engraved in the accompanying Plate, rather than by the more complicated scales of form and colour displayed in the patterns given in Plate II.

In the box-top figured in our present illustration, even the uninitiated must appreciate the judgment with which the designer has contrived to balance the areas destined to be tinted with the different colours employed. Among the most remarkable peculiarities of Indian ornamentation, as applied to plane surfaces, are the flatness exhibited by the leaves, flowers, &c., of which it is composed, and the general appearance of equal surface which its various parts present. In too many patterns of European design the eye is drawn to one particular portion of an object which should retain the uniform aspect of a flat surface; and according to the amount or quality of the light or colour at that point, so does that portion of the surface appear either to advance towards or retire from the spectator. Thus, a shawl upon a lady's back may frequently appear to protrude or recede, in other parts than those which the form of its wearer may account for.

In Indian designs, the happy effect of flatness is obtained partly by the judicious balance of quantity between the area of the field and that of the pattern, and partly by a careful preservation of the same ratio in every portion over which the pattern may extend. So skilfully is this balance maintained, that we have remarked in many Indian patterns, that if the whole of the ground stand to the pattern in the ratio of three to one, one-sixteenth of the whole surface measured, in any part, will be found to contain three of ground to one of pattern. It is scarcely to be supposed, that the Indian artists are guided by laws so mechanical as those to which we allude, but rather that the refinement of taste, engendered by their traditional education, precludes their toleration of any departure from those harmonious proportions which the practice of ages has sanctioned as most pleasing and agreeable.

In the "Journal of Design" (vol. v. p. 92) Mr. Owen Jones has made some valuable remarks on the principles which should govern the distribution of plane surfaces in decoration. In defining some abstract principles, applicable in their fullest extent to the artistic productions contributed from India to the Great Exhibition, that gentleman observes, that "one guiding principle of the ornamentation of the Orientals appears to have been, that their decoration was always what may be called surface decoration. Their general guiding forms were first considered, and those forms decorated. Their flowers are not natural flowers; but conventionalized by the materials in which they worked. We do not see, as in European works, a highly-wrought imitation of a natural flower, with its light and shade, struggling to stand out from the surface on which it is worked, but a conventional representation, sufficiently near to suggest an image to the mind, without destroying the unity of the object it is intended to decorate. There is a total absence of shadow. The patterns of their shawls and carpets are harmonious and effective, from the proper distribution of form and colour, and do not

INDIAN LAC-WORK.

require to be heightened in effect by strong and positive oppositions. The great aim appears to be, that coloured objects, viewed at a distance, should present a neutralized bloom. Each step nearer exhibits fresh beauties; and a close inspection, the means whereby such effects are produced. In their diapers and scroll-work, one of the means by which this harmonizing effect is produced appears to be, that the ornament and the ground occupy equal areas. To obtain this effect requires no ordinary skill, and it can only be arrived at by highly-trained hands and minds."

In turning from the question of the artistic principles involved in its decoration, to the actual object before the reader, we may remark that the process of its fabrication is analogous to that usually adopted in China. Similar works, though of a somewhat coarser description, are common in various parts of the Indian peninsula; and the present specimen can scarcely be regarded as offering any distinctly local characteristics. The number of boxes and toys executed in this mode of workmanship in India is very great; and scarcely a traveller returns from that region to Europe without bringing back some evidence of the skill of its natives in the application of *lac* to every description of articles.

These are, perhaps, only exceeded in quantity and diversity by the productions of China. Many interesting illustrations of processes similar to those we have described in our account of Plate II. were comprised in Mr. Dunn's extraordinary collection of works of Chinese Art and Industry, exhibited at Hyde Park Corner in 1842. Amongst these were various *boxes* of various kinds,—viz. : to contain fruits, vegetables, cakes of ink, water-colours, sweetmeats, wedding presents of silk, &c. &c. There were also lacquered cases, containing smaller boxes for trinkets, lacquered fan-cases, red lacquered boxes for culinary purposes, others used in gaming, and for travelling purposes, chess-boards, snuff-bottles, and many other articles. In the interesting Catalogue of that collection by W. B. Langdon, the curator (8vo. 1842), the following note is appended to one of the principal objects in lacquered ware :

"The lacquered or japanned ware of China is well known. All substances that are dry and rigid, as woods, metals, and prepared paper, admit of being japanned. The fine varnish used for this purpose is obtained from a shrub called *Tseih-shoo* (*Rhus vernix*), from which it distils like gum. It is poisonous in a liquid state; and hence great caution is used, both by those who gather and those who work in it, to shield themselves from its noxious qualities. It is capable of receiving all colours, though black is the most common. More than fifty coats of varnish are sometimes put on."

Another article in the Chinese Collection was described as a "Superb Cabinet from Soo-chow, in the province of Fokeen, a locality famous for its manufacture of lacquered ware."



RICHARD - I
COEUR DE LION

RICHARD COEUR DE LION AN EQUESTRIAN STATUE BY THE BARON MARCOFF (11)

LONDON PRINTED AND PUBLISHED FEBY 1852. BY DAY & SON LITHOGRAPHERS TO THE QUEEN

M. DIBBY W. A. T. DIBBY

RICHARD CŒUR DE LION,

A STATUE DESIGNED FOR BRONZE, BY THE BARON MAROCHETTI.

WHENEVER popular judgment is concurrent, there is good ground for trusting to its correctness, whether the matter involved be a question of fact, of wisdom, or of taste. The universal admiration which was excited by this grand Equestrian Statue, alike in the mind of the connoisseur and in the senses of the most uncultivated who flocked to gaze upon the marvels of the Great Exhibition, may therefore be regarded as an unquestionable tribute to the power of the truly great artist. Few among the multitudes who looked with pleasure upon that work could at all appreciate the nature of the peculiar difficulties which its great scale presented. The knowledge of proportion and of effect which is absolutely requisite to be brought to bear upon a statue executed two or three times the size of life, and probably in a number of detached pieces, is not only far greater in amount than that which will suffice to reproduce nature on its ordinary scale, but is necessarily much more precise.

In consequence of the extreme difficulty of appreciating, in the limits of a studio, the general appearance of a great object, destined to be seen by the ever-varying light of day, much must be trusted to rule, and modelled in obedience to the prescriptions of perhaps erroneous, or at least prejudiced, experience. The obvious danger arising from this necessity is, that the work should be tamed down, in process of working together, into undue conventionality of style, and life and fire be extinguished beneath it. To recognise, then, in an heroic statue on such a scale as the Richard, all the truth and ease which might be rapidly dashed into form in a small clay sketch, is to confess the triumph of genius over mechanical difficulties, and to acknowledge the true prerogative of Art—to please by Art—and yet to show no Art.

The talent of the Baron Marochetti appears to have developed itself, or to have been developed by accidental circumstances in an especial degree in this department of the sculptor's art, owing to his having been called upon to devote himself sedulously to the study of those ingredients which are necessary to be combined to make up a grand equestrian statue. Within the last fifteen years the Baron has executed a considerable number of such works, and as much of his artistic life has been spent in their production we shall notice the principal, in the order in which they have been modelled.

About thirteen years ago, Charles Albert, king of Sardinia, desiring to raise a monument to the celebrated Emanuel Philibert, duke of Savoy, victor in the fields of St. Quentin and Gravelines, selected the Baron Marochetti as the fitting artist to carry his design into execution. He was justified in his choice, not only by the talent which the then youthful sculptor had displayed, but by the fact that, though born in France, his ancestors were Piedmontese. This statue, which is of colossal size, has been erected on the Piazza di San Carlo, at Turin, a situation worthy of so fine a work. Adopting the costume of the period, the sculptor has worked out, with extreme freedom and care, the details of the armour worn by the warrior. The action, both of the man and the horse, is in the highest degree spirited. The latter, yielding to the action of the curb, is restrained in the midst of violent effort: and his rider, apparently unmoved by the exertion of the animal, is inserting the point of his sword into its scabbard with the grace and dexterity of a finished cavalier. The head of the Duke beautifully conveys the character of his mind. Warlike

RICHARD CŒUR DE LION.

energy is associated with great refinement, and the expression is admirably suited to the statesman whose judicious policy gave peace to his country, after he had proved his prowess in the field.

Marochetti's success in the execution of this statue greatly enhanced his popularity, and led to his employment on some important works during the most prosperous days of the reign of Louis Philippe. The reputation he acquired in these commissions accounts for the fact that, in the year 1844, he was invited to undertake the execution in bronze of the colossal equestrian statue of the Duke of Wellington at Glasgow. In the performance of the task thus confided to him, he has been scarcely less successful than in the work above described. He has, however, given to both the horse and its rider a more tranquil action, harmonising with the quiet determination and advanced age of the great British commander. The bas-reliefs on the base of this monument, in the principal of which are embodied incidents from the battle of Waterloo and the campaign in Egypt, are among the most successful and spirited bas-reliefs ever executed in metal in this country.

On his return to Paris, about three years later, the Baron Marochetti received his most important commission from Louis Philippe, who directed him to prepare a statue of the Emperor Napoleon, to be placed upon the esplanade of the Hôtel des Invalides. Marochetti has moulded this subject three times the size of life, and invested it with a breadth and grandeur of style corresponding with its elevated character, and the scale on which it is designed. The severe lines formed by the Imperial robes, and the composed dignity of the figure, contrasted with the vigorous action of the horse, admirably suggest the colossal intellect which could sit unmoved while all was heaving in action beneath. This statue is thirty feet in height, from the head of the Emperor to the hoofs of the horse, and is of the same dimension in length. In February, 1848, the modelling of this figure was just completed, and the Baron was from day to day expecting instructions for casting it in bronze, but the disastrous revolution of that year interfered with the realisation of his hopes, and compelled him to seek tranquillity in this country.

With an energy undiminished by his reverses, Marochetti vigorously set to work in England, and commenced the splendid statue which forms the subject of our illustration. Certainly no living, and probably no ancient sculptor, has been enabled to carry out so important a series of large equestrian compositions.

In addition to the great works to which we have alluded, an infinity of groups, single figures, and busts, of smaller size but equal beauty, have issued from the *atelier* of the Baron; and these have been disseminated more particularly in France. One of his most important works in marble is a group representing "The Assumption of the Magdalen," who is borne upwards by a number of angels. This great composition forms one of the most striking ornaments of the Church of the Madeleine at Paris. In the same beautiful building he also executed two angels, standing at the sides of the principal altar, in the front of which he has also introduced a marble bas-relief of "The Last Supper." A figure of an angel, forming the principal pinnacle of the Church of St. Germain l'Auxerrois, is also a work of much spirit and grandeur; and among the portrait statues of heroic size which have added to the reputation of Marochetti, we may particularly mention the figures of Bërtholet, the celebrated chemist of the Empire, and Latour d'Auvergne, the *premier grenadier* of France.

It is to be hoped that the genius of Marochetti will not be unappreciated in this country, and that the noble statue of "Richard Cœur de Lion" may not be suffered to remain in plaster, confined within the limits of the artist's studio.



J. SLIEGH, DEL.

M. DIGEY WYATT, DIRECT

ORNAMENTAL GUN STAND FROM TUNIS

LONDON: PRINTED AND PUBLISHED FEB. 1852 BY DAVY & SON, LITHOGRAPHERS TO THE QUEEN.

F. BEDFORD LITH.

ORNAMENTAL GUN-STAND FROM TUNIS.

THE necessity for providing, in every hot country, such inclosures as maintain privacy, and at the same time ensure efficient ventilation, has conduced, more especially among the Oriental nations, to the perfection of a style of openwork design comparatively unknown to the inhabitants of colder climes. Such ingenious reticulations of line as spread over a plain surface, and admit of numerous perforations, which rather enhance than interfere with the symmetry of the entire composition, found especial favour among the faithful followers of the Prophet, and wherever their conquests have planted his standard this especial style of design is found to flourish in its highest perfection.

In India, in Spain, on the north-west coast of Africa, and throughout Persia and Turkey, both in stone, in wood, and in plaster, numerous external inclosures and internal partitions are to be met with, framed on the principle to which we have alluded. These screens, for so they may be fairly called, serve at once to effectually conceal from the gaze of the distant spectator the precise form of any dark-eyed beauty who may take delight in peeping through their apertures, and at the same time to enable the lady to examine clearly and at her ease whatever passing incidents may attract her attention and vary the monotony of the customary hareem life.

It is, however, in Cairo, above all other localities, that this style of inclosure has been most lavishly indulged in. Perforated stone and wood-work are there to be met with as the general basis of the architectural decorations of the most ancient mosques as well as of the most modern mansions. The overhanging galleries, which tend to still further diminish the width of the already narrow streets, consist of framing of wooden quarters, heads, and sills, so arranged as to leave openings which are almost invariably filled in with wooden lattice-work. The panels which are nearest the ground are generally closed, and the pattern as it rises increases in openness. Above the level of the head the air is allowed to enter as freely as possible, and thus, while the occupants of the apartments are hidden, light and air are permitted to enter.

The above description of inclosure is, in proportion to the relative size of the two cities, scarcely less prevalent at Tunis than at Cairo; and in the open-work filling-in of the various panels an almost equal amount of ingenuity is displayed. In Plate XV., an interesting illustration was given of the mode in which plaster is frequently perforated to form a screen, and in the present plate we offer a specimen in wood of equal beauty, exhibiting many of the most commonly-occurring patterns in the artistic and lace-like joinery of the Tunisians. Although in the object engraved, which serves merely as a species of ornament across which guns and other arms are supported by metal brackets fixed on each side of it, the interstices are backed up with coloured foil and with looking-glass, and by imagining that back-ground removed, we may form a notion of the extreme elaboration to which the ordinary wood-work, framed on the perforated principle, is carried. One of the most ingenious modes by which economy in the formation, and strength in the construction of the lighter varieties of wooden screen-work are frequently insured, is by stringing alternately a number of wooden beads and rolls upon a first series of iron rods, which are laid parallel to one another. The beads are also pierced in a direction contrary to that by which they are strung to the first series of iron rods, and a second series of iron rods are passed through them, as well as through rolls, which serve to separate the two crossing lines of

ORNAMENTAL GUN-STAND FROM TUNIS.

the iron rods. The effect produced is that of a net-work of wooden rolls, the intersecting points of which are marked in all cases by beads. The admirable effect in interior decoration produced by this and other scarcely less ingenious modes of arranging wooden lattice-work, was agreeably shown in the beautiful picture representing the interior of an apartment in an hareem, which was exhibited by Mr. F. Lewis at the Gallery of the Society of Painters in Water-Colours of London, in the year 1849. The flying lights and charming chequered effects produced by such perforations, and the amount of clearness with which external objects may be seen through them, was defined with a care and certainty of execution which offered the best possible guarantee for accuracy.

Mr. Drummond Hay, who may fairly boast of having been one of the very few Europeans who have ever been admitted within the jealous precincts of the hareem, has fortunately recorded his impressions of the interior of such a *locale* as pleasingly with his pen as Mr. Lewis has with his pencil. The graphic language of his description conjures up for the imagination a scene in which the subject of our present illustration,—the beautiful doors which were executed in a similar style,—the perforated plaster-work which we engraved in Plate XV., and many of the other novel and exquisite objects, which made the Tunisian exhibition so universally interesting, are vividly recalled to the memory. Mr. Hay* observes that “the habitation of the favourite consisted of a court open to the sky, with a room on each side; a fountain played in the centre, and in one quarter there was a vapour-bath. The floor and sides of the court were prettily laid in coloured tiles, bordered with precepts from the Koran. The *folding-doors* which opened into the principal dormitory were beautifully carved in intricate geometrical figures, and the walls were richly decorated in arabesque stucco-work; fine velvet couches and cushions of embroidered leather were ranged around the room; and opposite the door, on an *elaborately painted rack*, hung a fine Algerine gun, the barrel of which was curiously damascened with gold, and the stock inlaid with coral and silver. Below it was suspended a clumsy Moorish sword in a scabbard of gold and velvet.” The ceiling was adorned with minute mouldings, richly painted and gilded, and of the same intricate devices as are yet to be seen in the Alhambra of the Caliph of Grenada. At one end of the room stood the *trousseau* box of a bride, made of the famous pine of the Moorish Highlands called l’Aris; it was elegantly carved in Saracenic fashion, and from the fine perfume of the timber must, probably, have been well adapted for the preservation of apparel. On this box were placed an eight-stringed lute and the noisy *tomtom*. “The only *apertures* for light and air to these apartments when the doors are shut are worked *in plaster*, seeming almost as delicate as filigree; they fill several niches, in the form of what we call ‘Gothic windows,’ and of these there were three or four over each doorway: there was, however, one small chamber in the second story, out of harm’s way, which had two tolerably-sized windows, closely latticed, however, whence the prisoned inmates of the hareem might unseen feast their eyes on a valley of orange and citron plantations which border a serpentine stream named Boosafa,—the Father of Clearness.”

* “Western Barbary, by John Drummond Hay, Esq.” London, 1844.



J. A. VINTER, DEL.

M. DICBY WYATT, DIREX.

F. REDFORD, LITH.

CENTRE PIECE IN SILVER BY WAGNER OF BERLIN

LONDON PRINTED AND PUBLISHED PER. H. BULLOCK & CO. LITHOGRAPHERS TO THE QUEEN.

PLATE XXXV.

CENTRE-PIECE IN SILVER,

BY WAGNER OF BERLIN.

THIS beautiful object, which was exhibited by the firm of John Wagner and Son, Jewellers and Silversmiths for several generations to his Majesty the King of Prussia, was executed by Albert Wagner, son of the present head of the above firm. This young man, who at the present time is no more than twenty-five years of age, was educated at the Royal Academy of Arts at Berlin, his native place, and has worked as a practical silversmith for only four years, having in that short period acquired a dexterity of manipulation rarely to be met with in workmen of much longer standing. He received honorary distinction from the Academy of Berlin in the year 1851, and he has been also rewarded with the Council medal of the Great Exhibition for the work under consideration,—his first really important undertaking. In it the artist has attempted to portray the progress of man's endeavours to rise, by the subjection of material nature, to a final triumph over the powers of Evil. The rude conflict with Nature, to force her contribution of supplies for physical necessities, is represented in the lower portion of the composition; and, rising upwards, the gradual contest with all that is sensual and degrading, and the ultimate assertion of the supremacy of the Ideal. At the base are seated representatives of the Nomadic races, herding with the brutes, surrounded by the animal life on which they preyed, and grouped around the trunk of an oak, which typifies the primæval forest life, and suggests the material of the Ark, by means of which man first rode triumphant on the waters,—and of the primitive plough, by which the earth was made to yield her increase. Around this oak three female figures of Agriculture, Horticulture, and Vine-culture are grouped, representing the successive steps in advance of people having fixed places of abode. The vine was selected as emblematical of the most spiritual of these stages, when, the commoner wants being supplied, man seeks a joy and gladness beyond, leading to the developement of the industrial arts and sciences. This foreshadowed progress is expressed in the reliefs showing human beings engaged in the occupations of civilised life. These reliefs form a frieze around the bowl of the vase; and on its margin the efforts of man are crowned by evergreens—the ivy and the laurel. Above all, springing from a palm of Victory, soars a Genius, grasping the torch of holy fire, and radiant with the triumph of mind over matter. It is impossible to refrain from admiring this hymn of life, the passing scenes of which are apprehended by a poet's mind, and realised by an artist's hand.

The vase weighs altogether ninety pounds, and its value is 1800*l*. The detached figures—which were modelled by the first artists in Berlin from drawings by Mr. Wagner—are cast, but the reliefs round the bowl are beaten up; and the whole of the chasing and finishing was executed by that gentleman, who devoted to the task no less than eight months' incessant labour.

In a communication with which we have been favoured by Mr. Wagner, he urges the motives which induced him to oxidise the metal, and thus give his centrepiece the appearance of old work; and, as an ingenious exposition of the arguments which may be urged generally in favour of such a mode of treatment, we gladly give a free translation of them to our readers. Mr. Wagner remarks, that "Silver, although very ductile to work, is nevertheless disadvantageous to any artistic composition, from its grey and polished appearance,

CENTRE-PIECE IN SILVER.

possessing neither the warm, solid colour of bronze, nor the transparency of marble. Whether polished or white, silver shows cold and false reflected lights, where in other metals there would be unbroken shadows. The oxidising process gives to the hollows their proper amount of shade; and in order to heighten this effect the whole of the work is covered with slight indentations, made with a smooth chasing-tool. By this means an effort has been made to represent in the figures the texture of the flesh, and in the vegetable productions their freshness and moisture. This is different from the usual mode of treatment, in which figures and ornament are covered with an unmeaning and monotonous granulation. This kind of texture is certainly not true to nature, as but few animals, and only the underside of the leaves of some plants, present this rough appearance, but, on the contrary, show pores and impressed lines." Mr. Wagner offers the above explanation of this peculiar mode of treatment, as he conceived his intention to have been somewhat misapprehended, not only by the general public, but by many members of his own profession.

Our young artist, who, as we have stated, comes of a line of celebrated goldsmiths, although supporting an independent establishment, has in this work laboured for his father, Mr. J. Wagner, the present conductor of the manufactory. The latter gentleman succeeded his father in the *atelier* from which many of the most important works which have for many years been executed in Germany have proceeded. Amongst these may be mentioned the reproduction of the celebrated Lanti vase, now in the possession of the King of Prussia, and the wedding outfit of the Queen of Bavaria, both in silver. Much charming jewellery has also been executed for the Countess Redern in Berlin, and the Princess Witgenstein of St. Petersburg.

The name of Wagner is celebrated in France, through the exertions of M. Carl Wagner (brother to M. John, and, consequently, uncle to M. Albert Wagner); but as we shall have occasion to allude to his career in noticing the productions of his successors in the firm he established at Paris, we shall at present confine our remarks to an intimation of the fact of his relationship to the great Berlin family of art workmen.

Prussia is to be regarded as especially fortunate in preserving to modern times the traditions of those old masters whose fame and whose works spread from Germany over the whole continent of Europe; and as we shall hope on a future occasion to refer to them, we shall notice only a few of those fellow-labourers in the same line with the Wagners, who now maintain the reputation of Prussian workmanship in the precious metals. Among them must be especially mentioned Hossauer of Berlin, by whom the shield, designed by Cornelius, modelled by Fischer, and now in the possession of the Prince of Wales, was put together. He was at first only brought up as a tin-worker, but, turning his attention to the fabrication of objects in the precious metals, he succeeded in engrafting on that business many of the processes made use of in his original avocation, and thus he has taught the goldsmiths the art of stamping in thin sheets, with steel dies, galvanizing, gadrooning, and the use of engraved rollers. During Schinkel's lifetime he was assisted with drawings by that great artist, by means of which he was enabled to produce some first-rate works; more recently, his great commercial ability has been developed in connexion with the manufacture of plated goods.

George Vitto of Berlin, a favourite pupil of M. C. Wagner, is celebrated for his *repoussé* work, and for his preservation of much of his great master's dexterity.

The manufactories of jewellery at Hanau, Stuttgart, and Pforrheim, continually bring into the market much good work, the forms of their objects and the perfection of their enamels being particularly carefully attended to. The productions of Weisshaupt, Horst, Daines, Bakes, and others, are considered to evidence both much skill, and not a little good taste.



EMBROIDERED BOOT FRONT

SCINDIAN MANUFACTURE

FOR HIS HIGHNESS WEERAJEE RAU

LONDON: PRINTED AND PUBLISHED BY W. & A. G. SIMMONDS, 15, ABchurch Lane, E.C. 4.

EMBROIDERED BOOT-FRONT,

EXHIBITED BY HIS HIGHNESS MEER ALI MOORAD OF SCINDE.

FROM few districts of India was a more satisfactory collection of specimens of national produce contributed to the Great Exhibition than from Scinde. The liberality and exertion with which his Highness Meer Ali Moorad made arrangements for the collection of such a series of objects as should completely illustrate the costume, habits, and leading manufactures of the country, were especially to be commended.

It appears probable, however, in spite of the beauty of many articles thus contributed, that the trade of Scinde is, as compared with that of many other districts of the Peninsula, in no very favourable condition. Mr. Thornton, in his "Gazetteer of the Countries adjacent to India on the North-West," presents an anything but flattering picture of the manufacturing capabilities of Scinde. He remarks, "that the state of manufacturing industry is generally rude, and few articles are produced suited for exportation." Among the branches of industry which have been pursued with most success in various districts, he especially notices the government establishment for the formation of weapons at Hyderabad. He remarks, "that in that city the fabrication of swords, spears, fire-arms, and other arms, offensive and defensive, has been greatly encouraged by the Ameers; and in consequence is carried to a degree of perfection surprising among a people in general so unskilled." Weaving and embroidery are also successfully conducted in the same locality; and it is most probable that the object engraved is a specimen of the ability of those engaged in the latter occupation in that city. Of the other manufactures more especially involved in the production of this object we gather, that "Tanning is successfully carried on, especially at Larkhana, where excellent shoes, sword-belts, and leather water-bags, are made. The bark used is generally that of the Acacia. Silk goods are fabricated at Tatta, Roree, Kyerpoor, and Shikarpoor, the raw material being principally obtained from Persia and Central Asia. Tatta also manufactures *loongees*, or rich narrow cloths of silk and cotton, sometimes intermixed with golden thread, and embroidered."

It is but just to observe, that the political constitution of Scinde and its frequent internal discords have operated most unfavourably upon the developement of its natural resources. Tradition tells of its wealth and glory previous to its invasion by the Persians in the sixth century, and of its subsequent struggles with successive Kaliphs. From that period to the present it has been bandied from conqueror to conqueror, its commerce never having been allowed the seasons of peace requisite for the developement of national prosperity. Under the comparatively tranquil, though feeble, rule of its later possessors, the Ameers of the Talpoor dynasty of Beloochees, it in some degree revived; but it is to be feared that the misfortunes necessarily brought upon it during the late war will long paralyse the efforts of such of its population as might, under more favourable circumstances, have been capable of great things.

In Mr. James Burnes' interesting Narrative of his visit to the Court of Scinde, published at Bombay in 1829, a very graphic account will be found of the state and pomp with which the Ameers conducted their durbars, or grand audiences, together with sundry particulars of the ordinary costume, to which we may suppose the magnificent boots, from one of which the pattern engraved was taken, to have been an adjunct of extraordinary splendour.

EMBROIDERED BOOT-FRONT.

This specimen of embroidery affords a charming example of the beautiful combination of colour for which the Oriental nations are so eminently distinguished, and on which we shall proceed to offer a few remarks in continuation of those given in our notice of Plate XXXII.

Colours, as correctly made use of, should vary in combination with every variety of surface to which they may be applied; and it is the province of the decorator, by taking advantage of certain properties inherent in each tint, to enhance the effects aimed at by the designer who prescribes the conditions of form. The three primary tints affect the apparent relative proximity of surfaces to the eye in three different ways. Yellow advancing, blue receding, and red maintaining an intermediate position; secondaries and tertiaries advancing or receding in proportion to the predominance of one or other of the primaries.

The mode of application derivable from these peculiar properties is easily illustrated, by imagining a plane surface, in which a number of regular equidistant indentations are made, and to which a number of fillets are attached, passing between the indentations. The simplest proper mode of colouring such an object would obviously be to tint as much of the original surface as was left, red; to tint the sunk faces, blue; to tint the projecting fillets, yellow, or to gild them, and to leave the edges at right angles to the surfaces, white, so as to interpose a neutral between every colour, preventing the confusing effect of their otherwise apparent blending. If the relative areas of the three varieties of surface thus coloured stand to one another in the proportion of sunk face 8, projecting face 5, and original surface 3, then the whole object will keep its distance; if, however, any one be increased or diminished, the whole object will appear to approach or recede *pari passu* with the altered ratios. Centuries of patient experiment have educated the Indian, as they did the Persian and Moorish eye, to scales of area, by the invariable preservation of which a pattern set out and coloured on the mosaic principle, can be applied to a plane surface, and no part of that surface shall appear, at a little distance, to advance before, or recede from, the general plane of the surface to which the decoration is applied. One great condition in the treatment of colour as of form being, that the proportions of the subdivisions of every part stand in the same ratio to the original subdivision of the whole area to be decorated. If any one portion differs in that respect it is certain to make a blot, or, as the French say, *de faire trou*, in the composition, destroying its harmony and integrity.

It is by an intuitive recognition of these and other simple general principles, that the Oriental nations have been enabled to adjust their arrangements of colour with such exquisite precision, giving apparent salience to every projecting form, and flatness to every plane surface, and contrasting the two in obedience to the great law of "simultaneous contrast." It is by such a mode of treatment, whether applied to architectural or sculptural form, to wall-painting, or printed or woven fabrics, that subdued effect is allied with the utmost richness and nobility of decoration.



H. RAFTER DEL.

M. DUBY WYATT, DIREX.

J. A. VINTNER, LITH.

THE "FIRST STEP," A STATUE IN MARBLE BY PIETRO MAGNI OF MILAN.

LONDON, PRINTED AND PUBLISHED FEBY 15th 1852, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

THE FIRST STEP,

A STATUE IN MARBLE, BY PIETRO MAGNI OF MILAN.

THE artist by whom this pleasing group has been executed is still quite young; and, if we are rightly informed, this may almost be looked upon as in every respect his "First Step." The popularity obtained by Magni through his contribution of this work to the Academy of Fine Arts at Milan, has, we believe, procured him many commissions, and there is every reason to hope that his future career may fulfil the promise held out by this his first important exhibited work.

Among the beautiful objects contributed to the Great Exhibition by the sculptors of Milan, it would have been possible to have selected many of greater academic correctness, and treading with a more reverent footstep in the traditions of the antique. From the fine works of Fraccaroli, whose manner was strongly suggestive of that of Canova; of Strazza, whose "Ishmael fainting with Hunger" was a work of very great power; of Gaetano Motelli, whose group of "Paolo and Francesca da Rimini" evinced a high aim and poetic imagination; or of Raffaello Monti, whose "Eve after the Fall," and other statues, displayed a thorough acquaintance with his art and a great mastery over the technical difficulties of the material,—specimens might have been chosen possessing even greater merit than that which forms the subject of our present Plate. We have, however, preferred to engrave Magni's group as being probably the most important work in *Picturesque Sculpture* in the whole Exhibition.

There is no class of objects more difficult to redeem from vulgarity than that in which every-day costume and incident are depicted on a scale approaching that of life. The directness of the imitation leads the spectator to demand an almost greater power of reproducing nature than can possibly be accordant with the conditions of the sculptor's art or the nature of the material in which he works. The demand for colour to perfect the resemblance becomes almost as imperative as the supply of that demand would inevitably prove painful. Thus subjects of a picturesque character, unless treated with very remarkable skill, almost necessarily require to be rendered on a scale considerably smaller than life. The difference of dimension at once precludes the idea that the work is merely a transcript of nature; the mind recognises the conventionalities peculiar to the art, and makes allowance for the necessary departure from nature in the details. Thus a refined carrying out of the minutiae of modern costume becomes perfectly agreeable in a statuette; and thus the application of colour, which would be intolerable in a life-sized figure, serves to confer an additional charm on the pleasing little groups of shepherds and shepherdesses, fine ladies and fine gentlemen, which constitute the ordinary subjects of old French and Dresden china. It is scarcely less painful to meet with a subject of every-day life—one in which the eye instantly detects that the marble mantle or shoe by no means carries out the idea of cloth or leather—represented to the full scale of nature, than it is to see an ideal work, portraying the grand emotions of a god-like energy, reduced to the usual limits of works in Parian or *biscuit*.

As every class of material involves on the part of the artist a mode of treatment consonant with its conditions of plasticity, so every variation of scale to a certain extent requires a variety of conventionality. The breadth and massive modelling of drapery which strike us as noble in a statue of heroic size, would

THE FIRST STEP.

appear coarse and clumsy in one considerably reduced in dimensions; and the exquisite finish of a lace-ruff or an embroidered garment which we admire in silver in a plateau, could not but be regarded as frivolous in any bronze of a monumental character.

The late Mr. Wyatt of Rome, whose skill in apportioning the exact amount of finish he bestowed on every part of his statues to the material of which it was intended to convey an idea was truly remarkable, was accustomed to acknowledge gratefully the assistance he had received in theory from the interesting work of Quatremère de Quincy on "Imitation in the Fine Arts." By a careful study of the general principles laid down in that excellent work, of those which the critical acumen of Visconti and Winckelmann has derived from the antique, and of those which Sir Charles Eastlake has so admirably expressed in his "Contributions to the Literature of the Fine Arts," a just scale may be established in the artist's mind of the proprieties and limitations under which contemporary costume and the most ordinary actions may be rendered without exciting any discordant emotions.

It is by a judicious attention to such principles, that Pietro Magni has been enabled to enlist our sympathies for the graceful and natural incident he has represented, without allowing either an undue obtrusion of manual dexterity or a slothful coarseness of execution to disturb the truthfulness with which the idea of maternal affection and youthful confidence has been represented.



W. & A. GIBBS DEL.

W. & A. GIBBS SCULPT.

F. BEYERHOLD LITH.

ORDER OF CLERICS BY COUNT HARRATH OF BOHEMIA

LONDON, PRINTED AND PUBLISHED BY W. & A. GIBBS, 55, B. B. SON, LITHOGRAPHERS TO THE QUEEN

PLATE XXXVIII.

A GROUP OF GLASS,

BY COUNT HARRACH OF BOHEMIA.

THE process by means of which objects similar to those we have engraved in the present Plate are formed is, to glaze over a vessel of one coloured glass a thin coating of another. The engraver then cuts away the outer surface in parts, so as to exhibit the desired pattern. This method is the same as that which was followed by the ancients, and may be seen in the Portland Vase, as well as in numerous beautiful fragments, many of which, of the most interesting description, are still preserved in the Museum of the Studii at Naples.

In modern times great excellence has been attained in this manufacture in Bohemia, particularly in the establishment of Count Harrach, at Neuwelt, where, in the year 1844, more than 300 workmen were constantly employed in all the different departments. These men are all natives of the place, who have been educated and gradually led on to their present skill by the superintendents of the manufactory. Further efforts have been made of late years with the same object by establishing a drawing-school for the workmen, the favourable results of which are already visible in the greater taste shown in the improved forms and design of the objects produced. The liberal proprietor of the establishment has also encouraged the labours of his men by providing a fund for the superannuated, as well as for the widows and orphans. The quartz used in the manufacture at these glass-works is derived from the neighbourhood of Stepanitz, about ten miles distant from Neuwelt. The sand used in the furnace is obtained from Friedstein, and the fire-clay from Collin. The manufactory has two melting-furnaces for preparing the raw material, besides all the necessary ovens and furnaces for annealing, and for the delicate processes of the manufacture. The machinery employed is worked by water. Besides the number of hands engaged in the establishment, a good deal of the cutting and polishing is done in private shops.

The manufactory of Count Harrach produces almost every variety of object now made in glass; and whilst it exhibits great perfection in all the various departments of melting processes, in colour, in cutting, and in polishing, it is particularly remarkable for the execution of cameos and intaglios in glass, which are afterwards inserted in vases, &c. This establishment has also obtained considerable celebrity for its light yellow and cream-coloured glass.

Bohemia is not the only district of Germany celebrated for the production of ornamental glass. Silesia and Bavaria share to an almost equal extent in the reputation which, in that department of art, has been gained by Bohemia. The products of Silesia were represented in the Great Exhibition by the works of Count Schaffgotsch, of Schreiberschaw; and those of Bavaria, by the Government glass-works, at Theresienthal. In the last-named establishment the forms of the objects produced are frequently of great beauty, and the modern artists of Munich have contributed designs both for their general form and decoration.

The celebrity of Germany for the production of ornamental glass for drinking-vessels and vases is of considerable antiquity, and many specimens are preserved in the Royal Collection of Arts at Berlin by which the progress of the manufacture may be satisfactorily traced. In the interesting Catalogue of that Museum,

A GROUP OF GLASS.

by Dr. Franz Kugler,* we find some remarks on the successive steps by which the art has reached its present state of perfection. The author divides the series of specimens, which were for the most part executed in the seventeenth century, into two distinct classes. The first of these, which was introduced at the commencement and continued till the termination of that epoch, consists generally of long glass cylinders—some of even colossal dimensions—which are painted in enamel colours, with a remarkably free handling. The decorations of these monster glasses usually consist of armorial bearings, and occasionally of figures, the outlines being indicated by sharp, dark lines. The vessels of the second of these classes appear to have been produced only in the latter half of the seventeenth century. While the form of the glasses remains much the same in the cylinder or upper part, the lower portion is quite different. Instead of the long and spreading foot common in the goblets of the first style, those of the second are supported on three little glass balls. The paintings are more cleverly and tastefully finished; a very slight portion of colour only is introduced, and the principal part of the pattern is touched with an agreeable dark brown sepia tint, occasionally heightened with black. The most excellent artist in this branch of design was the celebrated Johann Schafer, of Nuremberg, who died in 1670. A series of admirably finished glasses executed by him is preserved in the Museum at Berlin. Three of these are inscribed with the painter's name. On one of them he has executed a landscape and a large coat-of-arms; on another, a tournament of knights in antique costume; and a third, which is painted in one colour only, gives a representation, in excellent drawing, of "Daniel in the Lions' Den." Johann Keyle and Hermann Benchert are also names which appear on similar glasses, executed respectively in 1675 and 1677. There can be no doubt that this style of ornament was adopted in imitation of the objects which were supplied from the manufactories at Venice to all parts of Europe, and which formed a considerable branch of commerce in the latter part of the sixteenth century.

About the year 1700 this method of painting on glass was abandoned, and in the places where it had been carried to perfection a system of ornamenting glass by cutting was introduced. This style was an imitation of the works in crystal and other materials, which, through the skill of Valerio Vincentini, had been added to the ducal collection of gems at Florence. These old cut-glasses are decorated with mythological figures, genii bearing fruit, and hunting and hawking scenes. Few of them exhibit much artistic ability, but they are all laborious and skilful specimens of handicraft. As a variety of this style may be mentioned the beautiful ruby glasses which were produced under the direction and through the skill of the celebrated chemist, Kunkel, at Potsdam.

The art of glass-cutting which was thus carried to perfection in Germany, has maintained itself in that country with undiminished success to the present time.

* "Beschreibung der in der Königl. Kunstkanmer zu Berlin, vor Landenen Kunstsammlung," 8vo. 1838.



F. H. DELAMOTTE DEL.

W. DIGBY WYATT DIRECT.

F. BEDFORD LITH.

FOUNTAIN IN IRON, BY ANDRÉ OF PARIS.

LONDON, PRINTED AND PUBLISHED FEBY 15th 1852 BY DAY & SON LITHOGRAPHERS TO THE QUEEN

FOUNTAIN IN IRON,

BY ANDRÉ OF PARIS.

THIS elegant object formed a conspicuous ornament in the last French Exposition, and attracted no less admiration in the Great Exhibition of all Nations. To both of these collections M. André contributed also many other productions, remarkable at once for good design, excellent modelling, and singularly clean casting.

Fortunately, the Reports on the successive Exhibitions of French Industry have preserved an interesting series of facts in relation to those who took part in them; and it is from that of the year 1844 that we have gleaned many of the following particulars of the career of this highly-successful manufacturer.

M. André's progress may be divided into two distinct periods. He commenced business as contractor for the supply of pipes to the town of Paris. Possessing no establishments of his own, he procured the execution of them by working sub-contractors in the furnaces of Champagne. Although at that time unacquainted with the details of the founders' art, he was enabled, by the exercise of activity and intelligence, to introduce the best system of moulding, which, besides ensuring perfect execution, led to great economy of production. M. André was thus enabled to effect a reduction of price, which compelled his competitors to adopt his improved system. Thus, by his example, a remarkable service was rendered to foundries which had previously possessed only imperfect and costly processes. A still greater benefit was conferred on purchasers, since it enabled them to procure finely-moulded iron castings on terms far lower than those to which they had been previously accustomed.

Subsequently, in 1835, M. André established his extensive iron-works in the Val d'Osne. He has there displayed all the resources of his industrial capacity, and his foundry has acquired very great reputation; more especially since the year 1841. Undeterred by any consideration of expense, M. André introduced into his works every improvement of which the value had been tested by experience. He set the example in Champagne of economising heat, which would otherwise have been lost, and of which he availed himself to procure a supply of motive power, to heat air, and to dry his moulds; and he may indeed be considered as occupying the first rank among the iron-founders of Champagne.

When M. André began to produce fancy castings, balcony railings cost, at Paris, one franc the kilogramme; and pipes, forty-five centimes. In 1844 the former had fallen to forty or fifty centimes, and the latter to twenty-six or twenty-seven; a result which is mainly to be ascribed to his exertions. It is frequently the case, in extending a market and reducing the price of a commodity, that the increased consumption leads to a deterioration of the article produced; but it has not been so with the works of M. André. By allying himself to the most skilful designers and the best modellers of the French metropolis, he has evinced, in the prosperity of his career, how valuable good taste may become as a commercial commodity. Fully appreciating the advantages of education, he has attached to his establishment in the Val d'Osne a gratuitous school, in which he provides the best instruction for his apprentices; and a savings'-bank and benefit society also form part of his establishment. Upwards of two hundred workmen are constantly employed in his *atelier*, and in busy times his manufactory may be regarded as giving employment to at least double that number.

The productions of M. André obtained for him a prize medal in silver in the Parisian Exhibition of 1839.

FOUNTAIN IN IRON.

and a gold medal in that of 1844; whilst, in the Exhibition of 1849, he received a confirmation of his previous honours. He has also been awarded a Council medal by the Jurors of the Great Exhibition of 1851.

Whilst there is much that is highly creditable in the design and execution of the fountain now engraved, it may still be remarked that, in common with most other works in metal of the present day, its ornaments are deficient in those peculiarities of style proper to the material. This defect probably arises from the circumstance that the patterns for iron casting are made by wood-carvers; and thus we find that panels, eminently suggestive of joinery, and foliage and fruits, which might appropriately decorate cabinet-work, too frequently constitute the staple material of important designs carried out in iron. In the balcony railings and open-work door-panels used in the modern street architecture of Paris, the principle of lightness is admirably expressed; and even though painted in the most manifest stone-colour, the eye at once detects in them the peculiarity of the material. In too many larger ornamental objects in cast-iron, forms which it is usual to hew out of solid stone are directly imitated, in a manner which completely sets at defiance the associations which properly belong to the material.

Our limits preclude us from entering in detail into the history of the various improvements that have taken place in iron-casting in France. It may be sufficient to state, that they have been carried on nearly simultaneously and identically with those which have been introduced so rapidly and with such singular success in this country, and to which we have adverted in our notice of the works of the Coalbrookdale Company (Plate XIX.). We may, however, advert to the remarkable developement of cast-iron as a decorative material, which has taken place in Paris since the year 1818.

This progress is mainly to be attributed to the exertions of M. Calla, who, on his return from a tour in England in that year, added to his former works in Paris an iron-foundry, which speedily took a prominent position, and exercised a great influence over the iron trade of France. It was M. Calla who first executed iron ornaments on a large scale for public and private edifices; and by combining good taste with admirable execution he was enabled to overcome the prejudice which had existed against that material, and to introduce it in many positions in which bronze alone had been previously employed. Among the principal of these may be mentioned a number of works executed for the Palais Royal, the Tuileries, and the Château of Randan; as well as many objects, both of construction and decoration, for the Panthéon, the Church of the Madeleine, and those of Nôtre Dame de Lorette and St. Vincent de Paul. His admirable execution of the colossal statues which decorate the beautiful fountain in the Place de Richelieu attests at once his skill as a founder and the applicability of the material to such monuments; which, in fact, require but very slight attention for the purpose of preventing oxidation, to ensure for them a durability scarcely less lasting than that of bronze.



H. RIDGON DEL.

M. BROWN & CO. LONDON.

F. BEDFORD. LITH.

GROUP OF CRYSTAL VASES AND INDIAN JEWELLERY

LONDON: PUBLISHED BY H. RIDGON, 15, BROADWAY, LONDON, W. 1887.

A GROUP OF CRYSTAL VASES AND INDIAN JEWELLERY.

THE most cursory examination of the contributions from the Indian Peninsula to the Great Exhibition could not fail to convey an impression of the great superiority, in point of design, which the objects from its northern districts displayed over those from its southern. As the arrangements of colour, and the adaptations of the forms of flowers and foliage, were perceived to be most admirable in Cashmere, so it became apparent that the treatment of form and decoration exhibited its highest qualities in Lahore and the Punjaub generally.

It would be difficult to prove more conclusively the excellence of the productions of Northern India than by the very beautiful crystal vessels which form such conspicuous objects in the group we have now engraved. In these beautiful works we may at once admire the simplicity of the main or bounding lines, the refinement of the ornament employed to decorate them, and the exquisite workmanship which has been devoted to its application.

That constant wonder which arises from contrasting the admirable and elaborate results attained in Indian manufactures with the simple means by which they were produced, cannot but be excited in an especial degree, when we turn from a consideration of the perfect skill by which these vessels must have been wrought, to a description of the primitive lapidary's wheel by which their graceful forms have been elaborated. This contrivance is described as follows in a passage from the "Bombay Times," quoted in the "Official Illustrated and Descriptive Catalogue:"—"The wheel consists of a strong wooden platform, sixteen inches by six, and three inches thick. In this are two strong wooden uprights; between these is a wooden roller, eight inches long and three in diameter, fastened into a head at the one end, and this works on an iron spindle or axle at each end. On the one end the axle is screwed and fitted with a nut, by which the cutting or grinding wheel can be made fast. The lap-wheels consist of two circular discs or cakes of lac, with ground korund, coarse or fine according to the work; of a copper disc for polishing the very hard, and a wooden one for finishing the work of the softer description of stone. These are spun backwards and forwards by a bow, the string of which passes round the roller. The lapidary sits on his hams, steadying the wheel with his foot, and holding on the stone with his left hand while he works the bow with his right."

For the execution of works upon a larger scale, it appears probable that the Hindoo workmen have availed themselves only of a small steel chisel and an iron mallet; and by means of these rude instruments their most elaborate rock-cut carvings have been executed, and the highest polish given to some of the hardest substances in which their sculptures are produced. Dr. Kennedy, who is quoted by Dr. Royle in the "Illustrated Catalogue," remarks that "with such simple instruments they formed, fashioned, and scraped the granite rock which forms the tremendous fortress of Dowlatabad, and excavated the wonderful caverns of Ellora; for it seems by no means probable that the Hindoo stone-cutters ever worked with any other tools."

The various objects we have grouped together furnish some slight indication of the passion indulged in by the native princes of India for articles of the most precious and costly description. Not only every sovereign, but almost every petty prince, retains among his dependants many workmen whose lives are spent in ministering to this aristocratic rage for jewellery. It may readily be imagined, from the valuable nature of the materials with

which he is called upon to deal, that the goldsmith becomes an important officer in every household; and we are told in Dr. Buchanan's interesting notices of the native industrial classes, that "gold and silversmiths are called *sonar*, and the *sonar* forms a regular part of the monarch's establishment. His office is hereditary; and he weighs the crops when a division takes place between the landlord and tenant, or when either of these sells to the merchant. By orders of the police, the goldsmiths always work at home, but are watched by their employers to see that they do not adulterate the metals. The price for working silver is from one-sixteenth to one-fourth of the metal, according to the nature of the work. For working gold the price is from one-fourth to one rupee of silver for every rupee's weight of gold. The Minamorussa give various ornamental colours to the precious metals. A great many of the gold and silversmiths cannot give their work any polish; but one man in Patna, called a *sonkari*, lives by polishing their coarse work, and two other houses, called *jelagurs*, live by polishing a kind of bracelet worn round the thick part of the arm, which is called *bazu*, is very much in fashion and is always polished."

It is exceedingly interesting to trace the gradations by which this taste for display descends from the prince to the peasant. Each state and condition of society is distinctly marked, almost as much by the variety in quantity and quality of the jewels which decorate the females as by the rigid laws of caste. In the minute and detailed estimates made by Dr. Buchanan of the exact amount of property belonging to families in various classes of native society, we find a detailed estimate of the value of the personal ornaments usually possessed by the individuals belonging to each.

The general good taste which characterises the richer of these objects has been well remarked on by Dr. Royle. "There is," he observes, "great elegance in the silver service inlaid with mosaic from Cashmere. The same elegance of form is seen in the rose-water sprinklers, or *goolabas*, which are employed to sprinkle rose-water over departing visitors. Much of the jewellery, though rich and handsome, is peculiar, because the taste of the natives and the modes of wearing it differ from those of Europeans. A great variety as well of jewelled boxes have been sent by the Maha Rajahs of Nepal and Cashmere, and by the Rajahs of Rajpootana and of Cutch. The gold and silver girdles of Vizianagram are as perfect in workmanship as the gold chain of Trichinopoly is elegant. Dacca is one of the places celebrated for its silver filagree work; Cuttock and Agra are others; from all of which specimens have been sent. The articles usually made are bracelets, earrings, brooches, and chains, also groups of flowers, attardans, and small boxes; of all of which beautiful specimens have been sent. Mr. Taylor says the design best adapted for displaying the delicate work of filagree is that of a leaf. It should be drawn on stout paper and of the exact size of the article intended to be made. The apparatus used in the art is exceedingly simple, consisting merely of a few small crucibles, a piece of bamboo for a blow-pipe, small hammers for flattening the wire, and sets of forceps for intertwisting it."

A perusal of the dry enumeration of the articles of jewellery and the precious metals contributed from India to the Great Exhibition is sufficient to inflame the imagination with the most highly coloured visions of Oriental splendour. From every part of that continent these specimens were most abundant, and although peculiar fashions may exist in the different divisions of that vast continent, the affection for such objects appears to be universally dominant.

It is in Cambay in particular that the lapidary's art has been brought to perfection, and the fullest information on the articles of that district may be found in the "Illustrated Catalogue," in the interesting remarks of Mr. Augustus Summers, senior apothecary of Cambay. Those remarks afford ample details as to the materials employed and the organisation by which two thousand people are kept in constant work in ministering to that passion for luxurious adornment, both of their persons and apartments, which, from the days of Alexander to the present time, has been proverbial in the land of the far East.



F. SMALLFIELD DEL.

M. PIERCY WYATT DIRECT.

F. BEDFORD LITH.

A GROUP OF CHURCH PLATE BY SKIDMORE OF COVENTRY

LONDON: PRINTED AND PUBLISHED MARCH 11 1852 BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

A GROUP OF CHURCH-PLATE,

BY SKIDMORE OF COVENTRY.

ALTHOUGH Mr. Skidmore has only within a few years past manufactured objects similar to those represented in this Plate, his attention has been for many years sedulously devoted to the forms and processes which characterise those vestiges of the skill of our forefathers in the goldsmith's art which have descended to our own days.

Considering how closely Mr. Skidmore has studied the mode in which such objects were formerly fabricated, it must be regarded as especially satisfactory that his own compositions display considerable originality. In his two-handled chalice, he has sought to revive the early traditions of the Church, departing from the dogmatic laws which ordinary and comparatively modern usage has prescribed in the design of such objects. In the introduction of enamels and of nielli, as decorative adjuncts, he has been especially successful; and it is gratifying to see these arts, which have been so long dormant, reproduced with all the beauty and perfection of the best periods of their ancient popularity. All the objects which are introduced in our present illustration are suitable for Protestant use, and we cannot but regard the two-handled chalice as peculiarly appropriate for those churches in which large congregations are required to participate in the holy elements.

In subsequent notices we shall have frequent opportunities of returning to the subject of ancient metal-work, and may, therefore, at present confine our remarks to the peculiar forms and decorations of vessels such as those we have now engraved. With regard to the archæology of the subject, we cannot do better than avail ourselves of the admirable guidance of Mr. Albert Way, whose interesting "notices of ancient vessels, ornaments, and appliances of sacred use,"* convey the best possible information on the subject. Mr. Way informs us that "in earlier times, whilst the communion of the faithful under both kinds was permitted, the chalice termed *ministralis*, or *communicalis*, was of considerable capacity, and furnished not unfrequently with a handle on either side (*calix ansatus*), so that it might be raised with greater ease and security. A curious representation of such a chalice occurs amongst the embroideries of the Imperial dalmatic, of Byzantine workmanship, preserved at St. Peter's at Rome, as the 'cappa di S. Leone III.' (795-816), but probably not more ancient than the eleventh or twelfth century. It may likewise be seen in the missal of the abbey of St. Denis, now preserved in the Bibliothèque Royale, where the miraculous appearance of the Saviour and administration of the Eucharist to St. Denis are portrayed. This MS. is attributed to the eleventh century. Theophilus, who wrote his treatise about the same period, as it is supposed, gives, with detailed instructions for the fabrication of the greater and lesser chalice, a chapter on fashioning the *auricula*, or *aves*, of such vessels, a term by which the side-handles appear to be designated. These large chalices, furnished with handles, were occasionally suspended in churches, with coronæ and other ornaments, and are termed by Agnelli *calices appensorii*; they may be seen in the illuminations of the Bible of Charles le Chauve and other MSS. In many cases the *calices ansati* appear to have been used as receptacles for wine, in place of the stoup or flagon of recent times; being ill suited, on account of their large dimensions, for the purpose of administration. A large chalice, with two handles, which could not be easily raised by a man, was preserved in the treasury of Mayence Cathedral. The fashion of the chalice in primitive ages was, probably, of the

* "Archæological Journal," vol. iii. p. 129.

most simple kind. The silver chalice, formerly exhibited to pilgrims at Jerusalem as the cup used by our Saviour at the Last Supper, was formed, as described by Bede, with two handles; and, although the antiquity of the tradition may be questionable, it is not improbable that in many instances the shape of the *calix ansatus* may have been assimilated to such a revered model. In later times, a plain cup was used, somewhat more elevated in its proportions, fashioned with a knop, or *pomellum*, beneath the bowl, whereby it might be securely held, and it was occasionally inscribed or marked by some appropriate symbol. Subsequently the bowl was made of smaller proportions, the administration of the wine to the laity being forbidden, and, as a precaution against the risk of its being overturned, the foot was made very wide, with indentations, intended, according to De Vert, to keep the chalice steady when it was laid to drain on the paten after celebration, in accordance with ancient usage. The knop and foot were decorated in the most sumptuous manner, the bowl being usually quite plain, nielli, enamels, gems, and other precious objects, were incrustated amongst the elaborately-chased or graven ornaments of the lower parts of the chalice."

Unfortunately, from the indiscriminate zeal of the Puritanic movement, and the carelessness, and even cupidity, of those whose duty it was, in past ages, to guard the sacred treasures committed to their charge, nearly every vestige of the ordinary church-plate, as used in this country, has passed away. In some few parish churches, however, ancient chalices may yet be found, and many are preserved in the old Catholic families of the land. From the practice which existed of burying with every ministering priest a model of his chalice, types of the peculiar English forms of the plainer description of these vessels are not rare; but when we endeavour to acquire any information concerning the richer and more elaborate specimens, it is only from ancient inventories, and similar documents, that we can glean any authentic particulars. An extract from two of these descriptions will furnish some indication of their minute detail, and of the splendour of the objects they describe. Dugdale, who presents us with a glowing picture of the glorious riches of old St. Paul's, has preserved the following account of the precious chalices and patens which belonged to the sacristy of that cathedral.

"From the inventory of old St. Paul's Cathedral, London,—‘Calix de auro qui fuit Alardi Decani ponderis cum patena xxxv^s. x^d. Et continet in pede vii lapides, et in patena est medietas ymaginis Salvatoris. Item, calix de auro cum pede cocleato, et in patena manus benedicens cum stellulis in circuitu impressis ponderis cum patena xli^s. viii^d. Item, calix de auro quem dedit Will. de Bunera ponderis cum patena continente manum benedictionis £x v^s. v^d. Item, calix de auro, qui fuit Henrici de Wengham Episcopi, continens in pede circulos aymalatos, et circa pomellum sex perlas, et in patena Agnus Dei ponderis cum patena xlvi^s. iii^d. Item, calix argenteus deauratus, qui fuit, ut dicitur, Magistri Rogeri Capellani, cum flosculis in pede levatis, et in patena plena Majestatis ponderis cum patena lii^s. Item, calix argenteus Henrici de Northanton deauratus, cum pede cocleato & scalopato et pincato ponderis cum patena l^s.'"

For the benefit of those to whom the monkish Latin may not be perfectly intelligible, we add an extract of a similar nature from the inventory of Lincoln Minster:—"Imprimis, a chalice of gold, with pearls and divers precious stones in the foot and in the knot, with a paten of the same, having graven, 'Cœna Domini,' and the figure of our Lord with the twelve Apostles, weighing thirty-and-two ounces. Item, one great chalice, silver and gilt, with the paten, weighing seventy-four ounces, of the gift of Lord William Wickham, Bishop of Winchester, some time Archdeacon of Lincoln, having in the foot the Passion, the Resurrection of our Lord, and the Salutation of our Lady; and in the paten, the Coronation of our Lady, having a roll in the circumference, written, 'Memoriale Domini Willielmi Wickham.' Item, a chalice, silver and gilt, with one plain paten, chased in the foot, with a written knop, with one gilded spoon, containing a scripture, 'Blessed be God,' having a scripture in the bottom, 'Johannes Cynwith,' weighing thirty-eight ounces and a quarter. Item, a chalice, chased in the foot, silver and gilt, with a paten, graven with a lamb and four Evangelists, weighing three-and-twenty ounces. Item, a chalice, silver and gilt, with an image of the crucifix in the foot, with a paten, our Saviour sitting upon the rainbow, weighing ——. Item, one chalice, silver and gilt, having about the cup, 'Laudato Domino in Ecclesia Sanctorum,' and on the foot, 'Totus mundus est Ecclesia,' and on the paten, 'Enixa est Puerpera,' &c., of the gift of the Lord Charles Boothe, Bishop of Hereford."

From documents similar to the above we might quote numerous descriptions of the ornamented flagons and precious book-covers once in constant use in the cathedrals and other churches of England. But as the style of their execution, and the ornaments that were made subservient to their enrichment, were in general similar to those of the ancient chalice, we should fatigue the reader, and exceed our necessary limits, by enumerating them



M. J. H. B. 1874

1874

PAPER HANGING BY HIRSHLITZ & CO. LTD. LONDON

STRAIGHT LINE AND SQUARE MADE IN FRANCE - THE PATENT - THE 1874

PAPER-HANGING,

BY HINCHLIFFE OF CHELSEA.

It is always gratifying to recognise in the productions of old-established firms the retention and energetic exercise of those powers by means of which their original reputation was obtained; and it is, therefore, in the present instance eminently satisfactory to be enabled to observe, that the credit of the well-known factory at Whitelands has been worthily sustained by the various specimens contributed from it to the Great Exhibition. Among those specimens there were few which displayed more quiet and excellent taste, alike in colour and in form, than the graceful design which forms the subject of our illustration, and, in the whole Exhibition, there were few pieces of paper, as specimens of execution, more neatly and carefully printed.

As in the course of the present work we hope to be enabled to give several other notices of the art of paper-staining, we shall confine our remarks, in the present instance, to a few observations on the mural decorations of a simply textile nature, which have at various periods taken the place of paper-hangings in this country, and which have now been almost entirely superseded by them. We shall see hereafter how many of these, paper-hangings are frequently made to imitate, and how many suggestions for varied patterns, textures, &c., they have afforded.

In spite of the thick walls built by our ancestors, we can scarcely doubt that draughts were abundant in their unplastered buildings. To protect themselves from these piercing chills, hangings were introduced, which covered the face of the wall, and which served at the same time for use and for ornament. While the weaver's art was a simple craft, these cloths were quite plain, and it was to relieve that too great simplicity that the ladies of the olden times, of the days of the Henrys and the Edwards, whiled away the long evenings in embroidering the "gestes" and exploits of their lords in the field or in the chase, and the ghostly incidents of the "Aurea Legenda." As the art of weaving improved in Flanders, and as the industrious Flemings settled in this country and gradually extended their operations, these cloths became more elaborate in style, and the skill of the embroideress was restricted to the execution of vestments and garments lay and clerical. Gradually the weavers gained the power of enriching their stuffs with patterns, heraldic and conventional, and at last the fabrics which displayed the cognizances of the nobles' woven "semès," and which served for the hangings of their apartments, grew into the storied tapestry in which whole histories were skilfully wrought out, with all the pomps and vanities of the most elaborate costume and accessories.

This tapestry or arras, as it was called from being first made at the town of Arras in Flanders, was hung up by means of hooks fixed either at the ceiling or at a lower level, and servants, called "upholders,"* were specially appointed for their care,—more particularly during the removal of the tapestries to accompany their owner when he journeyed from one residence to another. It is probable that heraldry was originally employed in their decoration, since, in 1392, we find Richard of Arundel bequeathing to his wife the hangings of his hall, described as made in London, of a blue colour, and having red roses and the arms of his sons figured thereon. Warton† mentions, that *tapestries*, containing a representation of Syr Guy's famous fight

* Hence the term "*upholsterer*."† "*History of English Poetry*."

PAPER-HANGING,

BY HINCHLIFFE OF CHELSEA.

It is always gratifying to recognise in the productions of old-established firms the retention and energetic exercise of those powers by means of which their original reputation was obtained; and it is, therefore, in the present instance eminently satisfactory to be enabled to observe, that the credit of the well-known factory at Whitelands has been worthily sustained by the various specimens contributed from it to the Great Exhibition. Among those specimens there were few which displayed more quiet and excellent taste, alike in colour and in form, than the graceful design which forms the subject of our illustration, and, in the whole Exhibition, there were few pieces of paper, as specimens of execution, more neatly and carefully printed.

As in the course of the present work we hope to be enabled to give several other notices of the art of paper-staining, we shall confine our remarks, in the present instance, to a few observations on the mural decorations of a simply textile nature, which have at various periods taken the place of paper-hangings in this country, and which have now been almost entirely superseded by them. We shall see hereafter how many of these, paper-hangings are frequently made to imitate, and how many suggestions for varied patterns, textures, &c., they have afforded.

In spite of the thick walls built by our ancestors, we can scarcely doubt that draughts were abundant in their unplastered buildings. To protect themselves from these piercing chills, hangings were introduced, which covered the face of the wall, and which served at the same time for use and for ornament. While the weaver's art was a simple craft, these cloths were quite plain, and it was to relieve that too great simplicity that the ladies of the olden times, of the days of the Henrys and the Edwards, whiled away the long evenings in embroidering the "gestes" and exploits of their lords in the field or in the chase, and the ghostly incidents of the "Aurea Legenda." As the art of weaving improved in Flanders, and as the industrious Flemings settled in this country and gradually extended their operations, these cloths became more elaborate in style, and the skill of the embroidress was restricted to the execution of vestments and garments lay and clerical. Gradually the weavers gained the power of enriching their stuffs with patterns, heraldic and conventional, and at last the fabrics which displayed the cognizances of the nobles' woven "semès," and which served for the hangings of their apartments, grew into the storied tapestry in which whole histories were skilfully wrought out, with all the pomps and vanities of the most elaborate costume and accessories.

This tapestry or arras, as it was called from being first made at the town of Arras in Flanders, was hung up by means of hooks fixed either at the ceiling or at a lower level, and servants, called "upholders,"* were specially appointed for their care,—more particularly during the removal of the tapestries to accompany their owner when he journeyed from one residence to another. It is probable that heraldry was originally employed in their decoration, since, in 1392, we find Richard of Arundel bequeathing to his wife the hangings of his hall, described as made in London, of a blue colour, and having red roses and the arms of his sons figured thereon. Warton† mentions, that *tapestries*, containing a representation of Syr Guy's famous fight

* Hence the term "*upholsterer*."

† "History of English Poetry."

with the dragon in Northumberland, were in existence at Warwick Castle before 1398. He also gives a long list of the subjects treated on the tapestries of the various palaces belonging to Henry VIII. There are also very full descriptions of hangings in the extremely interesting inventories of Henry VII., now existing in the Record Office. Hunt, in his "Exemplars of Tudor Architecture," remarks that, "Of the historical and fabulous subjects represented on these hangings, the siege of Troy, the story of Hercules, and the parable of the Prodigal Son, seem to have been the favourites, as they are the most general." "Parke work" (landscape) and heraldry particularly, held high places in the estimation of the "devysors" of bygone times; and "in 1503, Katherine, Lady Hastings, disposed by will of 'counterfeit arras with my lord's armes, counterfeit arras with the imagery of women, alsoe pieces I have of blew and better blew with my lord's armes; and also pieces of hangings of verd that now hang in my chamber and the parlour.' The latter were probably hangings of rich silk in one colour, or, in fact, flowered damask."

With regard to their value he adds, "Some notion of the prices of hangings may be collected from a letter of Gilbert Talbot's to his father, the Earl of Shrewsbury, dated 1576,* wherein he says, 'I have seen many fayre hangynges, yo^r L. may have of all prycesse, eyther iis. a styck† or vii grotes, iiii s. ivs. vs. or vis, the styck, eaven as yo^r L. will bestow; but there is of vs. the stycke that is very fayre; but unless yo^r L. send upp a measure of what depthe and bredthe you wolde have them, suerly they will not be to yo^r L.'s lykyng; for moste of them are very shallow, and I have yet seene none that I thynke depe inoughe for a great chamber, but for lodgynges.'"

The materials latterly used in the superior description of this furniture were of the most costly kinds. Old inventories frequently mention cloths of gold and of silver, and embroidery, and a cloth made of a mixture of silk and gold called "baudekin."‡

Holinshed speaks of this in his description of the palace built outside the town of Guines, on the occasion of the tourney of the Field of the Cloth of Gold,—“Beside rich and marvellous clothe of arras, wrought of golde and silke, compassed of manie auncient storyes.” The room in which Henry VIII. received Francis I. at Calais, in 1520, is described as hung with cloth of gold, decorated with pearls and precious stones. And from Wolsey's inventories, we learn that in his sumptuous apartments, the gorgeous materials of the hangings were cloths of gold and silver and tapestries of pictorial subjects. Lord Orford, in his description of the sale of the effects of Charles I., says,—“One set of hangings relating to the story of Abraham, in eight parts, at Hampton Court, was valued in the inventory at 8260*l.*; and another in ten parts, the history of Julius Cæsar, was appraised at 5019*l.*” Most of the figured tapestries were importations, for we find in an act of Henry VIII. 1512 (4 Henry VIII. c. 6) as much as 4000 pieces of tapestry, &c. mentioned incidentally as coming in one ship. At what time tapestry was first manufactured in England, we have little satisfactory evidence; but Dallaway writes, “It was certainly previous to the year 1344, when a writ was issued (17 Edw. Tertii, m. 41) ‘De inquirendo de mysterâ Tapiciorum London.’ Henry VIII. gave a patent to John Mustian to be his arras-maker; and in the same reign, a private gentleman named Sheldon established at Barcheston, in Warwickshire, a manufactory in which some pieces were made, consisting of maps of counties, some fragments of which are still preserved.”§ Dallaway also furnishes us with “A full account of the manufactory at Mortlake of Sir F. Crane, conducted by F. Cleyne, in the reigns and under the especial patronage of Kings James and Charles I.”

The first mention of the importation of Gobelin tapestry is of that brought into this country by Charles Brandon, duke of Suffolk, being a part of the dowry he received with Mary of France, sister of Henry VIII.

In our next article on the subject of paper-hangings, we shall endeavour to trace the steps which immediately led to their introduction.

* Quoted in Lodge's "Illustrations."

† "Styck" is derived from the German word Stück—a piece.

‡ A name derived by us from the purpose to which it was first applied, viz. to form the baldacchino, or canopy, placed over the high altar of the Italian churches on great occasions, and also over the thrones of princes. Alberti tells us that baldacchino is also the name of a Levantine stuff, which comes from Babilonia, called by the Levantines "Bagdad," and by our ancestors "Baldacco." G. Villani speaks of "Un ricco palio di baldacchino di seta e di oro, messo sopra la sua persona."

§ Walpole's "Anecdotes," edit. Dallaway.



METAL BEDSTEAD BY WINFIELD OF BIRMINGHAM

A METAL BEDSTEAD,

BY WINFIELD OF BIRMINGHAM.

PERHAPS to the uninitiated there is no term which would be likely to convey a more false impression than that which is generally employed to designate one of the most important branches of the staple commerce of Birmingham. The "*brass toy trade*," despite its nominal insignificance, has probably contributed more than any other to the prosperity of that busy town; and no slight activity and energy are required to enable the principal firms in that branch of manufacture to send out, to the very ends of the earth, all that endless variety of articles of furnishing application, in which brass figures as the most important fundamental material. By the courtesy of the well-known firm at whose establishment the object we engrave was executed, and by availing ourselves of the practical knowledge of the subject possessed and kindly placed at our disposal by Mr. W. C. Aitken, by whom many interesting annotations were furnished to the "Official Illustrated Catalogue," we have acquired some information respecting the operations and processes of the Birmingham metal "*toy trade*," upon which we proceed to offer the following remarks.

It has been estimated that at the beginning of the eighteenth century the consumption of brass in Birmingham amounted to about 100 tons annually, and it may be safely affirmed that it reaches 10,000 tons at the present time. Upwards of 7000 individuals find employment in the various departments of the trade.

The Cambridge Street Works (at which the bedstead was executed which forms the subject of our illustration) were originally commenced in 1820, upon a comparatively limited scale. So greatly have they increased, however, since that period, that upwards of 600 workmen now ply their busy craft within the limits of the factory. Of the above-mentioned number of workmen, 150 are engaged in the manufacture of metal bedsteads; an equal number in the fabrication of the best quality of gas-fittings; and the remainder in the production of stamped brass ornaments for upholstery furnishings, metal tubing, wire, and the partial preparation of some of the objects which are subsequently completed by smaller manufacturers. An idea of the extent of its operations may be gathered from the fact, that 130 tons of copper and 45 tons of zinc are annually consumed in the making of brass, and that upwards of 100 of the ordinary iron bedsteads are sent off every week. Many very important improvements in the construction of metallic bedsteads have been invented and introduced in this establishment; among others, that of making the pillars which support the tester *continuous*, instead of out of a number of small pieces. This arrangement has imparted to them a stability previously unattainable, owing to the great strain which leverage brought upon the metal collars employed to unite the short lengths of tube required on the old system to make up each pillar.

The bedstead of which our lithograph is a representation was made expressly for the Great Exhibition, and possesses many pleasing details in the style of the French Renaissance. The cast scroll-work is harmonious in its curves: the little Cupids are prettily introduced, and the general design is agreeable and consistent with the conventionalities proper to works in metal. In the lightness and tenuity of the parts, the length of the columnar proportions, and the general sharpness of the details, the character of the material has been well expressed; and we may notice this object as especially free from that uncomfortable bulkiness of form, which, although proper only to wood, is yet so frequently to be met with in modern metal-work, especially when applied to furniture. It was, however, as a specimen of workmanship of the best class that this bedstead was to be especially admired. The perfection of the various plane faces, the fleshy texture of

A METAL BEDSTEAD.

the figures, the delicacy of the joints, the freedom of the chasing on the foliage, the truth of the mitres and arrises, the rectangularity of the framing and fitting, the evenness of the casting throughout, and the rich colour of the metal, all contributed to the successful realisation of a successful design.

On inquiring into the processes by which objects of this description are produced, we find that when the design is drawn a model is made in wax, of which, when coated with lac varnish, to harden its surface, and prevent the adhesion of the sand of which the mould is made, a cast is taken in lead. The imperfections common to early impressions having been removed by the "repairer," with his small gravers and chisels, a cast is taken in brass, which the "chaser," with his "mats," "punches," "stipple tools," and "riffles," speedily corrects and reduces to a perfect representation of what is required; and this completes the permanent "model" or "pattern," from which thousands of facsimiles may be made. Simple forms are easily moulded, and leave the sand freely, but where concavities or undercuttings are introduced, much skill and patience are needed. To copy a purely spherical model, the mould requires to be of two halves only,—but in complex portions, the mould is composed of many parts, and the time expended in making it occupies several days. It is in the judicious discrimination as to the fewest number of pieces, and the arrangement of the several "hanging cores," that the evidence of ability on the part of the moulder is chiefly shown. To make the particles of the sand which forms the mould more adhesive, it is pounded in a mortar, and its facilities for receiving the impression of minute details are increased by dusting over the surface with powdered loam and ground charcoal. In order to withdraw the original pattern, the several parts of the sand mould are lifted out by means of small points of wire, and after their removal, the pattern is taken out and the cores are replaced,—provision being made, by what are termed "gates," for the introduction of the fluid metal, which is melted in Stourbridge clay crucibles, in an air furnace with a clear coke fire. The moulds being closed and held together by wood clamps, the crucible and its contents are removed from the furnace, and the metal poured into the "gate" or aperture of the mould, in order to fill up the space left by the withdrawal of the pattern, and to produce an accurate copy of the original model.

The surface of a brass casting just removed from its matrix presents an appearance and colour closely resembling copper, whilst any roughness or superfluous metal indicates imperfection in the mould, to remove which, when the forms are simple, the file and the turning lathe will generally suffice. When a careful degree of finish is needed, the work requires to be "chased" up. Where the surface to be cleansed is of a "matted" kind, the aid of acid is called in, by immersion in which a uniform brilliant or a dead-gold appearance is secured. It is in this particular that modern brass-foundery differs from that executed by the skilful artisans of the middle ages, who produced a finished surface by friction, or by gilding through the medium of the mercurial amalgam. In acid finish, attention must be paid to the entire removal of grease, and a preliminary cleansing is absolutely necessary. For the final operation, the acid requires to be completely neutralised, otherwise the action will continue, and the surface be destroyed. The dead-gold appearance of much of the modern brass-work was the result of a discovery which arose out of the accidental circumstance of a piece of work having been left in the acid during the night. This hint was adopted, acted on, and successfully produced the desired effect.

The majority of the brass-work produced on the Continent is still gilt, but the gilding can be closely imitated, if some little care is taken in the composition of the metal, and if friction with a "scratch brush" be applied after "dipping." The burnished portions in brass-finishing are produced by steel burnishers, a little ox-gall being applied to prevent scratching. During this last process, the objects are kept wet from time to time by immersion in water and argol. After being "dried out" in box-wood saw-dust, they are protected from oxydation by a coating of lacquer, composed of spirits of wine, and coloured with a vegetable matter. The article to be lacquered is heated, and the lacquer applied with a camel-hair pencil.

In those objects produced from plates by pressure, the metal is prepared by being rolled into a thin sheet. The "dies" are formed of cast-iron or steel, but more commonly of the latter material: into these dies is cut or sunk the design to be copied in relief. The impressions are taken by means of a stamp-press, to the falling hammer of which a die, sunk in *intaglio*, technically called "a force," is attached. Annealing follows each blow, and the forces are so changed as to gradually increase in convexity, so that the highest relief and the minutest details may be brought up. The finish applied is the same as that described in connexion with cast brass-work. Of late years both plain and coloured glass have been introduced to a great extent, in combination with brass, and with such success that upwards of 22,000 pairs of cornice-ends and curtain-holders, into which the improvement has been introduced, have been sold within the few years which have elapsed since the taking out of Messrs. Winfield's patent.



W. E. POSEY DE.

1812

THE QUEEN

SHAWL FROM SPUN SILK PATTERNS WORKED IN A CASHMERE GROUND.

LONDON PRINTED AND PUBLISHED MARCH 1ST 1812 BY G. & SON LITHOGRAPHERS TO THE QUEEN

INDIAN SHAWL, EMBROIDERED ON CASHMERE.

As a specimen of gorgeous colour and elaborate execution, nothing can be imagined to surpass the shawl which forms the subject of our illustration. Its scale of composition offers a striking contrast to that of the scarf-end engraved in Plate XXVIII.; since, while the purpose of the designer of that object appears to have been to so arrange his colours as to neutralise and lower one another, until the general tone was brought to a rich brown tint, that of the artist who distributed the relative intensities of the tones which make up the pattern now presented to our readers, was unquestionably to enhance the splendour of each tint by vivid contrast, and to stimulate rather than to tranquillise the imagination of the beholder. As the former of these patterns served to convey a good idea of the general tone and effect aimed at by the *weavers* of Cashmere, so the latter may suffice to exhibit the more brilliant scale upon which the operations of those who *embroider* the plain fabrics of the country are usually based.

In our present notice we propose to resume the subject of the shawl-manufacture of Cashmere, in continuation of the remarks offered in illustration of Plate XXVIII., and in so doing shall derive our information from the several authorities therein alluded to.

The merchants of the country are celebrated not only for the skill with which they fabricate the goods in which they deal, but for the astuteness with which they dispose of their products. Mr. Vigne gives a most amusing sketch of the ingenious blandishments they are in the habit of lavishing, with every semblance of disinterested affection, upon those they conceive likely to become customers, and the unceremonious promptitude with which the guest is got rid of the moment the bargain is concluded and the money paid.

Many of the rich merchants possess large factories, in which are crowded together as many as a hundred looms and many hundred workpeople. "The looms usually consist of a kind of framework, at which the persons employed sit on a bench, in number two, three, or four. On plain shawls only two persons are employed, and a long, narrow, heavy shuttle is used. Those of which the pattern is variegated are worked with wooden needles, there being a separate needle for the threads of each colour. For the latter no shuttle is required. When the warp is fixed in the loom, the *nakash*, or pattern-drawer, and the overseer, who determines the proportion of yarn of different colours to be employed, are brought together in consultation. The first brings the drawing of the pattern in black and white; the *overseer*, having well considered it, points out the disposition of the colours, beginning at the foot of the pattern, and calling out the colour and the number of threads to which it is to extend, that by which it is to be followed, and so on in succession until the whole pattern has been described. From his dictation, the *talim guru*, or foreman, writes down the particulars in a kind of character or short-hand, and delivers a copy of the document to the weavers. The workmen prepare the *tujis*, or needles, by arming each with coloured yarn of the weight of about four grains. These needles, without eyes, are made of light, smooth wood, and have both their sharp ends slightly charred, to prevent their becoming rough or jagged through working. Under the superintendence of the *tarah guru*, the weavers knot the yarn of the *tuji* to the warp. The face or right side of the cloth is placed next to the ground, the work being carried on at the back or reverse, on which hang the needles in a row, and differing in number from 400 to 1500, according to the lightness or heaviness of the embroidery. The cloth of shawls is generally of two kinds; one plain, or of two threads, and one twilled, or of four threads. Shawls are twilled, and are commonly about twenty-four nails broad. They differ in their

INDIAN SHAWL, EMBROIDERED ON CASHMERE.

extent of field. Two persons are employed in weaving the cloth of this breadth. One throws the shuttle from the edge as far as he can across the warp, which is usually about half-way; it is there seized by the second weaver, who throws it onwards to the opposite edge, and then returns it to his companion, who, in his turn, introducing his fingers into the warp, forwards the shuttle to the edge whence it started."

"A loom may be occupied with one extra-fine shawl above a year, while others may produce six or eight in that time. Of the best and most noted sorts, not so much as a quarter of an inch is completed in one day by three persons, which is the usual number employed. Shawls containing much work are made in separate pieces at different shops. The wages of the head-workman are from six to eight *pie* per day, and those of the common workmen from one to four *pie*. The value of the *pie* in Cashmere is about three halfpence."

The shawls are made of various forms and sizes, and with borders adapted to different markets. These borders, unless very narrow, are made separately, and joined to the body of the shawl by skilful sewing. Hügel states that some shawls of this description contain as many as fifteen pieces.

Vigne informs us, that whereas a pair of shawls in which the pattern is *woven* costs in Cashmere 700 or 800 rupees, those in which it is *worked with the needle* are so far inferior in estimation, that a pair of equally good quality worked in the latter method may be obtained for 150 rupees.

When the shawls are cut from the loom, they are carefully washed, to deprive them of the stiffness left by the rice starch, in which the yarn was dipped, and to soften them generally. It is said that the peculiar properties of the water of a canal adjoining the city in which this operation is performed, imparts their extraordinary softness to the shawls of Cashmere. The water is thrown upon them, and they are trodden by the feet of the workmen, and then beaten against flat stones and dried in the shade, as the heat of the sun would be injurious to the colours. This process is repeated after an interval of ten days, and again a third time with the white shawls; which are bleached in the sun between each washing. To the latter soap is sometimes applied; but never to the coloured shawls, which would be injured by the alkali.

The principal mart for the sale of Cashmere shawls is Amritsir, in Lahore; but many merchants from Calcutta and other large cities of Hindostan visit Cashmere to make their purchases.

The highest price mentioned by Moorcroft for any fabric of this kind is £700; but a large proportion of their great cost is caused by the duties exacted by the native governors of Cashmere, and the provinces through which they are conveyed for sale. Hügel gives the following calculation of the price of a shawl selling for £200:—

| | |
|--|------|
| Materials and dyeing | £30 |
| Labour of twenty-four Artizans for twelve months | 80 |
| Duty | 70 |
| Charges of the establishment | 20 |
| | £200 |

An "English paper," published at Delhi, furnishes Mr. M'Culloch with the following particulars of the cost, &c. of a pair of real shawls, which in Bombay might sell for about 900 rupees:—

| | Furrukabad Rupees. |
|--|--------------------|
| Cost of wool | 12 8 |
| Cleansing, spinning, and dyeing..... | 61 0 |
| Weaver's wages | 264 6 |
| | 337 14 |
| Duties exacted by local governments in Cashmere, and in the transit to and at Bombay | 252 30 |
| Carriage and insurance | 21 12 |
| | 610 56 |

The Cashmere shawl-manufacture has greatly declined since the rule of the Mogul emperors, when the city is said to have contained 30,000 looms. Under the Affghan kings that number was reduced to 18,000; and Hamilton, whose Description of Hindostan was published in 1820, states that at the time of his visit there were about 16,000, each employing three men, and producing, on an average, five shawls in a year, making a total of 80,000. It is believed that there are now (M'Culloch, 1844) not more than 6000 looms. Various causes are assigned for this decrease, the principal being of a political nature; such as the oppressions and exactions of the Sikh governors of the province; the reduced prosperity of Turkey and Persia (to which countries many shawls were exported); a diminution in the demand for them in Europe; and, finally, the destruction of 13,000 weavers in a few years by cholera and famine.



M. G. DEL.

V. DICKE WYATT, SCULPT.

F. BEYERMAN, ENGRAVER.

FOUNTAIN IN TERRA COTTA BY CHARLES OF THE BAPTISTEN PLATZ, BERLIN, PRUSSIA.

DESIGNED BY V. DICKE WYATT, SCULPTED BY HERSELF, 1852. BY G. & S. CO. ENGRAVED BY F. BEYERMAN.

FOUNTAIN IN TERRA-COTTA,

BY MARCH OF THEIERGARTENFELDE (NEAR CHARLOTTENBERG), PRUSSIA.

BERLIN has now for some years past been celebrated throughout Europe for its productions in terra-cotta. The fountain here engraved was the principal evidence of Prussian skill in that branch of art contributed to the Great Exhibition; and whilst it admirably illustrated the perfection of the manufacture, it displayed at once a pleasing taste in composition, and great freedom and excellence in modelling. During the last fifteen years the firm by which this object was produced has continually advanced in excellence, and extended the field of its operations from the production of stoves, small vases, and similar objects, to the most important works of a decorative and architectural character. It has obtained especial celebrity for those elegant hanging baskets, made to contain flowers, &c., which have been generally adopted as favourite Christmas gifts by the middle classes of Berlin.

Terra-cotta, as its name imports, is simply baked clay; but considerable skill and care are required in its composition, so that exactly the right amount of vitrification may be ensured. The principal material of which it is composed is common potter's clay, with which a certain quantity of broken earthenware is mixed. Pounded flint is added, and a little sand to serve as a flux. These materials being finely kneaded together, are moulded into the necessary forms, which are then placed in a close kiln; from which they issue converted, from a soft plastic consistency, into a material as hard and as enduring as most natural stones. Some experience is required in so adjusting the design, that the various portions of the object may retain their form during the operation of cooling, upon their removal from the kiln. Unless the material be of a tolerably equal thickness in all its parts, the more solid portions are very liable to draw away from the thinner parts, which, if not causing fractures, will at least distort the general form, or, as the workmen phrase it, "throw the whole into winding."

The value of terra-cotta as a building material has been recognised from very early ages, and both by the inhabitants of Greece and Etruria the manufacture was carried to great perfection. Throughout the north and south of Italy we find many indications of its popularity, from the twelfth to the sixteenth centuries; and at Milan, particularly in the church of Sta. Maria delle Grazie, and in the Great Hospital, some admirable specimens of its manipulation are to be met with. Luca della Robbia and his family, in the latter part of the fifteenth and the whole of the sixteenth centuries, gave a great impulse to the employment of baked clay, through the discovery of a method of coating the material with a stanniferous glaze, so as to render it completely non-absorbent, and admirably adapted to endure the vicissitudes of climate; at the same time enhancing its capabilities as a decorative material, by the addition of brilliant and imperishable colours.

In the north of Europe it can scarcely be regarded as having met with the same popularity; and the form under which it was there employed partook rather of the nature of cut and moulded brick-work, than what is generally understood as pure terra-cotta. Thus in the buildings of the middle ages, in certain districts of Germany, much of the ornamental detail was executed in baked clay, though in so rough a manner as to appear, in fact, rather the work of the brickmaker than of the modeller. The forms were rudely carved out of lumps of prepared and half-dried clay of the same quality as that used for making the bricks, and the

FOUNTAIN IN TERRA-COTTA.

mass so shaped was afterwards burnt in the common kiln; and although, in most instances, the ornaments are frequently repeated, yet it does not appear to have been the practice to make use of moulds to give form to the clay, but each separate piece was cut out by hand, probably assisted by templates, similar to those which are employed in mason's work. This is tolerably evident from an inspection of ornaments which, though similar in general form, yet show trifling differences in every example. The works thus produced exhibit, generally speaking, no pretence either to delicacy of form or finish, and are never minute in character or in the subdivision of their parts. The principal examples are to be met with in the north-east of Germany, where a total absence of stone led to the employment of plastic material for the purposes of building and decoration. The earliest specimens date from the year 1200, but it was during the fourteenth and the commencement of the fifteenth centuries that the most important works were executed. The towns of Hamburg and Lübeck, and several now comparatively unimportant places in the old Margraveate of Brandenburg, abound with buildings of this period, in which the architectural detail is executed in this rude species of terra-cotta.*

In the latter part of the fifteenth century, the old practice we have described was to a great extent abandoned, and it was not until the commencement of the present century that the manufacture was successfully revived. Although stoves have been for ages made up with pieces of glazed earthenware, throughout Germany, still this manufacture has only attained a high degree of perfection since the beginning of this century; it is extensively carried on in various parts of Prussia, but it is in Berlin and the immediate neighbourhood that the best specimens are produced. There appears to be little doubt that the success which attended the efforts of those by whom these stoves were brought into the market, induced efforts to be made to restore the use of terra-cotta for ornamental and architectural purposes, and the name of Schinkel is intimately associated with the introduction of this material as a decorative adjunct to buildings generally. To the influence of the classical taste of this great artist may, perhaps, be attributed much of the elegance of outline, and the refined delicacy of detail, for which all the Berlin manufactures in various forms of burnt clay are now so highly distinguished.

The elaborate architectural details, as well as the bas-reliefs, which enrich the exterior of the Bau-Academie at Berlin, designed by Schinkel, are all executed in terra-cotta, and bear unmistakeable testimony of his influence in promoting the rapid progress of the art. That very great care was bestowed upon the execution of these works, we may infer from the fact, that even the plain bricks forming the outer face of the walls of this building, are so highly finished as to approach more nearly to the quality of porcelain than of brick,—more particularly those forming some of the bands and stripes, which are glazed and tinted of a delicate violet colour.

In subsequent notices we hope to enter more fully into the peculiarities of the style of Luca della Robbia, and of the manufacture of terra-cotta as practised in this country.

* An able paper, illustrated by a series of original drawings, was read on the peculiar type of architecture of the "Mediæval Brick Buildings in the North-East of Germany and on the Coast of the Baltic," by Charles Fowler, jun., at the Royal Institute of British Architects, on Feb. 18th, 1850.



200 201 202

V. DICKSON & CO. DUBLIN

350 351 352

GROUP OF PLATE BY GARRARD OF LONDON

LONDON BY GARRARD AND PUBLISHED BY GARRARD AND SONS, 357, ST. MARK'S LANE, LONDON. THE PATENT OFFICE, 25, SOHO SQUARE, LONDON. THE PATENT OFFICE, 25, SOHO SQUARE, LONDON.

PLATE XLVI.

SILVER-PLATE,

BY GARRARD OF LONDON.

As the design of the present work is to furnish models calculated to improve the public taste in matters of ordinary as well as of extraordinary use, we have preferred to select for illustration some of the comparatively minor objects exhibited by Messrs. Garrard, rather than any of their more costly and ambitious efforts adapted for execution on rare and special occasions only.

If the quality of taste can but be insured in the manufacture of articles of general utility, it must necessarily extend its influence over works of a more elaborate character. It may, therefore, be readily conceived, that the perfect execution and refinement of detail which characterise the objects we have engraved pervaded, in an equal degree, the larger and more complicated works contributed from the establishment of Messrs. Garrard. It would have been strange, indeed, if the productions of a house which for upwards of a century has enjoyed the patronage of royalty, and of the most distinguished of our nobility, had not displayed the utmost perfection of richness combined with beauty.

The works of Messrs. Garrard formed a conspicuous feature in the third Exhibition of British Manufactures, held at the Society of Arts in the year 1849; and will, no doubt, be fresh in the memory of all who studied those interesting displays—the immediate precursors of the Great Exhibition of All Nations. On that occasion the establishment referred to contributed a splendid gold centre-piece, executed by command of Her Majesty, from a design by His Royal Highness Prince Albert. In technical excellence that object could not well have been surpassed: its finishing and putting together were perfect, and in one respect it excelled every other piece of plate exhibited,—namely, in the delicacy of the contrast between the burnished and unburnished surfaces. A soup-tureen, in the Renaissance style, which was executed for Mr. H. T. Hope, M.P., and exhibited on the same occasion, furnished an admirable model for the form of such objects, and displayed an equal amount of skilful workmanship, and, perhaps, even more taste and appropriateness, than the centre-piece to which we have alluded.

The beauty and propriety of form displayed in the articles we have now engraved will convey a just idea of the perfection to which the Messrs. Garrard have carried the manufacture of plate suited to domestic uses. To the celebrity of those gentlemen as gold and silversmiths may be added an equally high reputation as jewellers; and it is due to them to observe, that the workmanship bestowed upon the setting of the gems which they exhibited was as faultless in its character as were the precious stones themselves.

As many of our readers may not be aware of the difficulties incident to the production of objects such as those at present under our notice, we proceed to offer a few remarks on the ordinary processes employed. The design of a piece of plate of an elaborate description having been drawn, the modeller proceeds to embody it in wax, finishing every portion of it with a degree of precision equal to that which is requisite for the finished object. Assuming that the body of the work is to be formed in what is called *repoussé*, or beaten-up work, a sheet of silver is cut into the form of the object, when developed upon a plane surface, and rudely beaten into a hollow, or dish form, by wooden mallets. The requisite degree of concavity having been given to it by hammering, ornaments in basso or alto-relievo are obtained by applying the internal surface

SILVER-PLATE.

to an iron rod, which is made to vibrate by the frequent blows of a hammer on the end of the iron farthest removed from that in contact with the silver. The continued action of these vibrations, regulated by the skill of the workman, gradually gives the requisite form to the ornament. The rough developement of minute projections is obtained by more pointed irons of a similar description. In order to define more perfectly the form of these projections, the silver vessel is filled with a composition of pitch and ashes; so that blows with punches of various sizes may be applied to any part of its exterior, without injury to the general form. When, by this counter-action, the relief of the ornament is modelled up, the finishing touches and fine edges are given, by means of chasing with the graver. The pitch is melted out, and that portion of the piece of plate is ready for the subsequent processes of cleaning, polishing, &c.

Where certain portions of the object require to be cast, the moulder takes a mould in *intaglio* from the original wax model. Into this mould he lays portions of sheet-clay, answering in substance to the desired thickness of metal. By pouring in liquid plaster at the back of the clay, a core is obtained, on the hardening of which the sheet-clay is removed, and melted wax is poured in between the two plaster-moulds to take its place. The small piece of wax, thus cast, is made to serve as a pattern for the final casting in sand-moulds, the silver being run into the two halves of the mould, so as to fill up the space originally occupied by the wax which was removed to make way for the metal. When the requisite number of these small pieces of silver are cast, and their edges trimmed up, they are neatly fitted one to another. Solder is placed between them, they are connected together by wires, and by the action of a gas blowpipe upon the solder-joints the whole are united. The patience and dexterity required for forming an elaborate piece of work, consisting frequently of from thirty to forty, or even more, of these small castings, may be readily conceived. As an illustration of the extreme difficulty this subdivision of parts involves it may be noticed, that in the formation of the great candelabrum exhibited by Messrs. Hunt and Roskill there were at one time no less than six hundred fragments distributed throughout their workshops, the whole requiring to be adjusted and brought together in the manner described, so as to make up the whole object.

In order to abridge the labour consequent upon the formation of frequently recurring patterns, stamping, by means of steel dies, is often resorted to. These dies, or *forces*, are engraved in *intaglio*, and brought down with a heavy pressure upon sheets of metal placed beneath them, in a manner similar to that we have described in our notice of Plate XLIII. as necessary for the formation of brass die-work. In open silver-work, similar to that which forms the upper portion of the tazza we have engraved, the perforations are cut out by hand, but in commoner work by means of steel dies prepared for the purpose.

When the article is completely put together, all the imperfections are removed, by *riffles*, and other tools. Every part is carefully chased, so as to give the utmost precision to the ornaments, and variety of texture to the different portions. The whole is then cleaned down and polished, by a succession of rapidly-revolving brushes, in connexion with which various substances of a greater or less degree of fineness are successively employed, until the scratches at first produced by the operation become imperceptible. In those parts in which a dull finish is desired, the effect is obtained by the application of a small metallic brush; and where, on the contrary, extreme brilliancy is required, that result is produced by rubbing the parts with burnishers of steel or bloodstone. A white frosted appearance, or "dead finish," is obtained by covering parts of the object with a coat of pulverised charcoal and saltpetre, or argol, bringing it to a red heat over a charcoal fire, and finally quenching it in a pickle of sal-enixon.

The employment of dies has been carried to so great an extent, that many ordinary objects—such as spoons, forks, &c.—can be formed out of sheet-metal at a single blow.

SILVER-PLATE.

to an iron rod, which is made to vibrate by the frequent blows of a hammer on the end of the iron farthest removed from that in contact with the silver. The continued action of these vibrations, regulated by the skill of the workman, gradually gives the requisite form to the ornament. The rough development of minute projections is obtained by more pointed irons of a similar description. In order to define more perfectly the form of these projections, the silver vessel is filled with a composition of pitch and ashes; so that blows with punches of various sizes may be applied to any part of its exterior, without injury to the general form. When, by this counter-action, the relief of the ornament is modelled up, the finishing touches and fine edges are given, by means of chasing with the graver. The pitch is melted out, and that portion of the piece of plate is ready for the subsequent processes of cleaning, polishing, &c.

Where certain portions of the object require to be cast, the moulder takes a mould in *intaglio* from the original wax model. Into this mould he lays portions of sheet-clay, answering in substance to the desired thickness of metal. By pouring in liquid plaster at the back of the clay, a core is obtained, on the hardening of which the sheet-clay is removed, and melted wax is poured in between the two plaster-moulds to take its place. The small piece of wax, thus cast, is made to serve as a pattern for the final casting in sand-moulds, the silver being run into the two halves of the mould, so as to fill up the space originally occupied by the wax which was removed to make way for the metal. When the requisite number of these small pieces of silver are cast, and their edges trimmed up, they are neatly fitted one to another. Solder is placed between them, they are connected together by wires, and by the action of a gas blowpipe upon the solder-joints the whole are united. The patience and dexterity required for forming an elaborate piece of work, consisting frequently of from thirty to forty, or even more, of these small castings, may be readily conceived. As an illustration of the extreme difficulty this subdivision of parts involves it may be noticed, that in the formation of the great candelabrum exhibited by Messrs. Hunt and Roskill there were at one time no less than six hundred fragments distributed throughout their workshops, the whole requiring to be adjusted and brought together in the manner described, so as to make up the whole object.

In order to abridge the labour consequent upon the formation of frequently recurring patterns, stamping, by means of steel dies, is often resorted to. These dies, or *forces*, are engraved in *intaglio*, and brought down with a heavy pressure upon sheets of metal placed beneath them, in a manner similar to that we have described in our notice of Plate XLIII. as necessary for the formation of brass die-work. In open silver-work, similar to that which forms the upper portion of the tazza we have engraved, the perforations are cut out by hand, but in commoner work by means of steel dies prepared for the purpose.

When the article is completely put together, all the imperfections are removed, by *riffles*, and other tools. Every part is carefully chased, so as to give the utmost precision to the ornaments, and variety of texture to the different portions. The whole is then cleaned down and polished, by a succession of rapidly-revolving brushes, in connexion with which various substances of a greater or less degree of fineness are successively employed, until the scratches at first produced by the operation become imperceptible. In those parts in which a dull finish is desired, the effect is obtained by the application of a small metallic brush; and where, on the contrary, extreme brilliancy is required, that result is produced by rubbing the parts with burnishers of steel or bloodstone. A white frosted appearance, or "dead finish," is obtained by covering parts of the object with a coat of pulverised charcoal and saltpetre, or argol, bringing it to a red heat over a charcoal fire, and finally quenching it in a pickle of sal-enixon.

The employment of dies has been carried to so great an extent, that many ordinary objects—such as spoons, forks, &c.—can be formed out of sheet-metal at a single blow.



A. RAFTER DELT

M. J. DE WILDE WROTE

F. HEMPHILL

BOOK CASE BY WILSON OF BELLSHILL (MOORS, LANCASHIRE)

DESIGNED BY WILSON OF BELLSHILL (MOORS, LANCASHIRE) AND BY THE WILSONS OF BELLSHILL (MOORS, LANCASHIRE) FOR THE WILSONS OF BELLSHILL (MOORS, LANCASHIRE)

BOOK - COVER,

BY FRENCH, OF BOLTON-LE-MOORS, LANCASHIRE.

GREAT as has been the improvement of late years in ecclesiastical architecture, an improvement scarcely less marked has been effected in the forms and peculiarities of those accessories which are requisite for the proper and decent performance of the rites and ceremonies of the Church.

While much of the theory of this judicious reform may be referred to those accomplished scholars whose studies have been for many years concentrated upon the subject, its successful realisation in his own department must be mainly ascribed to the gentleman who has produced the beautiful object which we now engrave.

While engaged, about fifteen years ago, in a line of business dissimilar from that to which he has since devoted himself, Mr. French had his attention directed to the necessity for a supply of communion linen, ornamented with more appropriate devices than the ordinary patterns of tablecloths, and other domestic damasks. He accordingly had a few altar-cloths made, with suitable ornaments; and these, together with corresponding napkins, were eagerly purchased by the clergy residing in the neighbourhood of Bolton. The obvious propriety of the articles thus manufactured induced many inquiries from influential quarters, leading to an increased and greatly-improved production; and Mr. French was induced to pursue, with considerable zeal, the study of the subject under its antiquarian aspect. Some of the results of his researches he has given to the world in a little volume, entitled, "Hints on some of the minor Accessories to the Service of the Church,"—a work which had a most extensive circulation, and led to orders of so important a character, that the author gradually relinquished the business in which he had been previously engaged, and devoted himself to the production of church fittings of every description.

In addition to the volume to which we have alluded, Mr. French has published several tracts on subjects connected with his productions; and among them one of especial interest, on "The Arrangement of Colours in Ancient Decorative Art." The views which are put forward in that brief essay are advanced with equal enthusiasm and modesty, and agreeably testify the amount of observation and taste which the author brings to bear upon the work in which he is engaged. We cannot better illustrate the principles upon which is based the pleasing arrangement of tint which may be noticed in the accompanying engraving, than by quoting the conclusions to which Mr. French has arrived:—"Some years since," he remarks, "I had an opportunity of closely examining a number of illuminated manuscripts, of what I believe is allowed to be the best period of English mediæval art,—that of the first three Edwards. I was particularly struck with the uniform arrangement of certain colours, and remarked that the practice of the illuminators was,—1. To separate the prominent colours—red, blue, green, purple, ruby, violet, &c.—from each other, by spaces, or lines, of *yellow*, *black*, or *white*. 2. To paint with brilliant colours, on grounds of *yellow* (frequently gold), *white*, or *black*; or if the ground was of any other colour, to use *yellow*, *white*, or *black*, only for the ornamentation. 3. To combine two or more shades of red, or of blue, green, purple, &c., without the intervention of *yellow*, *white*, or *black*. 4. To place *yellow*, *white*, or *black* together, or upon each other, without reference to the law which appears to have regulated the arrangement of all other colours." Although we may hesitate to subscribe to every conclusion of Mr. French on the subject of colour, we must admit that his practice affords the happiest confirmation of the justice and propriety of his theories; for, so far as we have been able to remark, the various patterns which he has been called upon to design have been uniformly harmonious in colour. These have been all drawn by himself, or by a pupil, whom he has trained for that purpose.

BOOK-COVER.

In a communication with which Mr. French has favoured us he observes, that although his work is in extensive demand throughout England, and for the Episcopal Churches in Scotland, the most sumptuous specimens are sent to the United States of America; and he adds, that the British colonies give commissions for altar-cloths of a richer description, and in a greater proportionate number, than the Church at home.

In the manufactory at Bolton, about eighty hands are constantly employed in embroidery, upholstery, making robes, surplices, hassocks, &c; and eighty or one hundred more are unintermittingly engaged in other localities, in weaving the necessary velvets, cloths, carpets, damasks, linens, &c.

The beautiful book-cover we have engraved is a masterly specimen of mechanical execution in embroidery, and was wrought upon a velvet ground, in a combination of *appliqué* and ordinary stitch-work. At the close of the Exhibition it passed into the possession of one of the exhibitors, by whom it was offered to the Countess Granville, as a token of respect for the private character of the Earl, and his public services in connexion with the Exhibition.

Few writers have done more to illustrate the practice of ancient needlework in this country than the Rev. C. H. Hartshorne, whose contributions to the "Journal of the Archæological Institute," furnish most copious information upon the subject.* It would be unjust to the author of those able papers to attempt to condense, in our necessarily limited space, the complete series of historical facts which he has collected. We prefer rather to borrow from the "Ecclesiologist"† a few practical remarks upon the subject of the embroidery suitable for altar frontals and other ecclesiastical hangings. From that source we gather that the groundwork of these decorations may be of velvet, of silk, or of a ground of gold diaper, which is worked by the needle: but as these materials are not convenient for being worked upon, the embroidery itself is done on another material, and then sewn on to the general groundwork. The material upon which embroidery can be best worked is a stout linen, of very even make, soft, and sufficiently coarse to allow a thread of gold or silk to be passed through the interstices when required. The linen ought to be made of pure flax, without any mixture of cotton, because the cotton is likely to work through in small tufts, and is *fluffy* to work upon; and because, if gold be used, cotton is said to be hurtful to it, from some acid used in its bleaching. Before using, the linen must be well washed in pure water, or boiled, to take out the *dress*. The linen is used doubled. The materials with which embroidery is worked are gold thread called *passing*, and gold twist, floss silk, and a kind of half-twisted silk called *mitorse*. Jewels and spangles may be added, if required. The gold thread must be used doubled, in a needle, the threads being laid down on the work side by side; the threads only passed through the linen at the extremities to fasten them off. They are laid upon the linen, and fastened down at intervals with silk. This method is called *cushion-work*, from *couchant*, because the threads *lie* on the groundwork. This is the general way of working groundings, diapers, borders, &c. It is capable of great variety, from the facility of following any pattern with continuous threads of gold. Rich back-grounds are worked in diaper patterns, and when sewn with coloured silks present admirable effects of colour. A rich raised stitch in gold, resembling basket-work, is occasionally employed for borders, and is formed by sewing down gold thread in alternate rows over packthread. It is difficult to procure good gold thread in this country, and care must be taken to select silver-gilt, and not copper-gilt. In many respects, however, gold-coloured silk is to be preferred to bullion embroidery. The most common stitch is the old-fashioned embroidery, or long-and-short stitch. It is used for figures, parts of draperies, the under parts of flowers, &c. A very useful stitch is formed of floss silk, laid down smooth and straight, and crossed over in squares or diamonds with a thin silk. Every intersection of this reticulation of silk is tied down with silk or gold: the tie may be single or double. This has the effect of fine quilting. In the choice of these materials, and the employment of the various stitches, much must be left to the artist. A careful inspection of the ancient examples will afford the best information as to the methods by which the most beautiful effects have been produced; and even if the result of such studies should lead to no practical results, it will be impossible to examine such specimens as the Fishmongers' Pall, the Hereford and Ely Copes, and the elaborate specimens of needle-work preserved by Mr. Bowden of Derbyshire, Mr. Hailstone of Bradford, and Mr. Wilson of Lincoln, without deriving much valuable information respecting one of the most pleasing and universally-practised arts of the middle ages.

* See "Archæological Journal," vol. i. p. 319. Mr. Hartshorne's remarks have been reprinted in a complete form, together with an interesting, practical chapter by Mr. Paley, in a small and convenient volume, entitled, "English Mediæval Embroidery," and published by Mr. Parker of Oxford in 1848. See also the Countess of Wilton's "History of Needlework;" and Miss Lambert's "Handbook of Needlework."

† Vol. iv. p. 97. (No. 3, May 1845.)



PLATE XLVIII.

INDIAN SCARF END FROM DACCA,

EMBROIDERED ON WHITE MUSLIN.

It is gratifying to recognise one of the most important results of the Great Exhibition, as an educational agent, in the publication of numerous treatises, both scientific and popular, on the various branches of knowledge which were there for the first time collectively represented. Among these none more interesting in its nature, nor more learned and complete in all its details, has yet appeared than "A Descriptive and Historical Account of the Cotton Manufacture of Dacca, in Bengal, by a former resident of Dacca."* This small volume is the production of James Taylor, Esq., who, whilst in the medical service of the East India Company, resided many years at Dacca, and who not only availed himself to the utmost of the extensive opportunities for personal observation which he necessarily enjoyed, but also of the official records of the locality, in which much interesting material for the illustration of the subjects had been already collected.

It is justly remarked in White's treatise on Weaving, that in the ordinary, and even the best previous notices of that art in India, the matters of the greatest importance, in a utilitarian point of view, are wholly lost sight of. "The adaptation of the tools to the varieties of the work, the skill manifested in the management of the yarn, the size of the shuttle, the build of the heddles, the depth of the shed, the tension of the web, the length of the stretch, the state of the paste, and manner of using it in the process of dressing, are nowhere noticed." To supply this deficiency Mr. Taylor has most successfully laboured, and his work is so ample in its materials, and so lucid and agreeable in its style, that, dismissing all other authorities, we may at once proceed to condense from its pages the interesting information which bears upon the fabric under our consideration.

The province of Bengal was famous for the fineness of its muslins upwards of sixteen centuries ago, and its celebrity in that respect has by no means diminished even to the present time. The locality most renowned for this manufacture is the district of Dacca (in the eastern division of the province), which is about 1960 square miles in extent, and in 1837 comprised a population of 530,000. Weaving is carried on in almost every village, but the principal manufacturing stations (*aurungs*) where muslins are made, are the city of Dacca,—the capital of the district,—Sunargong, Dumroy, Teetbadee, Junglebaree, and Bazetpore. The metropolis is situated on the north bank of the Booregunga, one of the channels through which the Brahmaputra discharges its waters into the Megna. Its population was computed in the year 1838 at 68,000, and at present the number of weavers' houses in the town is estimated at 750. It was described by Tavernier in the seventeenth century as a town of great trade.

The cotton of which the fine Dacca muslins are made is grown in the district, and differs from the common cotton-plant of Bengal in some particulars; the most important being, that the staple of the cotton is longer, much finer, and softer. The finest kind, which is called *photee*, and which has been cultivated from time immemorial in the district, is grown only in certain localities situated along the banks of the Brahmaputra and its branches, and the Megna. Its superiority has been attributed to the action of the sea, the water of which, mixing as the tide rolls in with that of the rivers, which overflow their banks during three months of the year, causes a deposition of sand and saline particles, and thus considerably improves and fertilises the soil.

* Published by John Mortimer, 141 Strand. 8vo. 1852.



J. A. VINTER, DEL ET LITH.

M. DICBY WYATT, DIRECTOR.

THE PLEASURES OF PUBLIC GARDENS, A SERIES OF BAS RELIEFS BY F. DRAKE OF BERLIN.

LONDON, PRINTED AND PUBLISHED APRIL 1ST 1862, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

PLATE XLIX.

THE PLEASURES OF PUBLIC GARDENS,

A SERIES OF RELIEVOS BY DRAKE OF BERLIN.

THESE graceful compositions have been developed from the circular plinth which forms the pedestal of the marble monument of Frederick William III. of Prussia, erected at Berlin. As contributed to the Great Exhibition by Professor Drake, they were reduced to one-half the size of the original model. It would be difficult to imagine any treatment of such a subject more agreeable and expressive than that which has been adopted in this work of art, or any one better calculated to display the learning and dexterity of the sculptor. The combination in the same composition of representations of infancy, childhood, adolescence, maturity, and old age, involves a severe tax on the powers of the artist; and it is but just to admit, that in every detail very remarkable success has been achieved. It would be difficult to have found among all the specimens of sculpture displayed at the Exhibition any one more agreeably illustrating the dogma, that the appearance of beauty and simplicity in the imitation of Nature can only be attained by consummate Art. Every action, seemingly so unconstrained, and full of the elasticity and *naïveté* of youth, has been studied, and probably arranged and rearranged many times, by the artist before the happy line is hit upon, which expresses all that individual representation demands, and at the same time allies by pleasing contrast each figure with those immediately connected together by the conditions of the story. Much that the world is apt to regard in works of art, as the result of those happy accidents which are supposed to constantly occur to great genius, are produced by a concentration of the faculties, frequently so intense as to prostrate the physical powers of the artist; while that elaborate execution of accessories which strikes astonishment into the ignorant is accomplished by the dexterous hand almost without an effort. It is as furnishing a model of study in composition, and learned treatment of the human form in contrast, that the attention of the student requires to be most urgently directed to Professor Drake's beautiful pedestal; it would be superfluous to dwell on the happy incidents which develop the expression of a scene in which all "from grave to gay, from lively to serene," wear the uniform aspect of Innocence and Joy. We do not remember to have ever met with compositions so fully carrying out a sentiment of sylvan pleasures, and suggestive of such refreshing associations.

Frederick Drake, a native of Pymont, was educated in the *atelier* of the immortal Rauch, at Berlin. He soon became distinguished for his remarkable talent, and more especially for the facility and delicacy with which his portraits were executed, both in relief and in the round. Among those whose external forms it has been his privilege to record, may be enumerated many of the most distinguished men of modern times in Germany, such as Alexander and William von Humboldt, Rauch, Schinkel, and others. His great bronze statue which commemorates the *savant*, Justus Moser, at Osnabrück, has earned for its author a considerable reputation in the department of monumental art. The graceful bas-relief which is engraved by Count Raczynski,* representing a figure of Charity, exhibits the same felicitous treatment which characterises the object given in the lithograph.

* In his "L'Art moderne en Allemagne," vol. iii. p. 164.

THE PLEASURES OF PUBLIC GARDENS.

Our artist at present occupies a professorial chair in the Academy of Fine Arts at Berlin, a position for which his talents and acquisitions in every way eminently qualify him.

In offering a few remarks on the progress of German sculpture, we shall touch very lightly on that of the earlier ages, since in most respects the processes of development from century to century followed the usual course of Gothic art in most of the other countries of Europe. Debased Roman in style, in its incipient stages, it imbibed a peculiar hardness and rigidity in its Romanesque period of transition, though occasionally attaining a really grand severity. In its earlier Gothic phase it was truly fine, simple, and earnest in sentiment, although in its later stage it grew too florid,—expression degenerating into caricature, refinement into attenuation, and easy, flowing lines of forms and draperies into unnatural and angular contortions. In its Renaissance period Germany was peculiarly favoured, since in many of her sculptors' productions recurrence to antique types was happily blended with much of the old dramatic energy in composition and intention which prevailed in the best periods of the Middle Ages.

Scarcely any monuments of German sculpture of a date prior to the eleventh century are known to exist, though from soon after 1100 they abound. About the middle of the thirteenth century the Gothic element appeared to develop itself in sculpture, and may be recognised especially in the tombs which date from that period. In all the old cities, in Cologne, Strasbourg, Magdeburg, Freiburg, Naumburg, Wurtzburg, Bamberg, Augsburg, &c., the churches and cathedrals were most lavishly decorated with carvings in stone, metal, and wood. It was, however, at Nuremberg that the great stride was made, and the foundation laid for that excellence which subsequently so eminently distinguished that city. In the middle of the fourteenth century flourished Sebald Schonhofer, who executed the beautiful figures which decorate the porch of the well-known "Frauenkirche," and the yet better known "Schöne Brunnen," in the last-named city.

In the sixteenth century the reputation of Nuremberg was fully sustained by Adam Kraft, whose exquisite tabernacle in the church of St. Laurence has been a constant theme of admiration. Michael Wohlgemuth and Veit Stoss worthily sustained the reputation of the school of Adam Kraft, but it was reserved for Peter Visscher to far excel them, and to carry to its utmost perfection the sculpture of the Renaissance period. In the truly beautiful shrine of St. Sebald, in the church dedicated to that Saint in Nuremberg, the most lofty conception, graceful fancy, and finished execution are united, and one of the masterpieces of human design has been wrought into being.

After the death of Visscher numerous artists essayed to equal his productions, but none succeeded, although much prolific genius was constantly labouring for the rich merchants, more particularly of Augsburg. From the commencement of the seventeenth century the pernicious taste of Bernini spread from Italy over the Continent of Europe, and Germany did not escape its influence, beneath which Art dwindled to a comparative nonentity. The continued wars and troubles which devastated the Continent retarded for awhile the rekindling of the spent fire; but at length the ancient spirit of the German nation revived, and from the commencement of the present century her word of command in art, as it was of old in battle, has been only "*Vorwärts!*" Fired, no doubt, by the writings of Lessing, Winkelmann, Göethe, Schiller, Schlegel, and many more, the youth of Germany has laboured hard; and at Berlin, Munich, Dusseldorf, and Dresden, schools have arisen, the admirable works emanating from which have redounded to the eternal honour of the present age. It is impossible to cite the names of sculptors such as Rauch, Schwanthaler, Dannecker, Rietschel, Kiss, Drake, and Wolff, without feeling that it is our good fortune to live in the same generation with some of the finest masters of the art who have ever existed, and whose works are worthy of the high state of mental culture universal at the present day in Bavaria, and in Northern Germany generally, but more especially in Prussia.



J. R. CLAYTON DEL.

M. DOBSON & CO. DIRECT.

A. S. REYNOLDS LITH.

CANDELABRUM AND ARABESQUE — MODELLED BY TRENTANOVE OF ROME.

LONDON PRINTED AND PUBLISHED APRIL 1ST 1832. BY DAVY & SON LITHOGRAPHERS TO THE QUEEN.

PLATE I.

A CANDELABRUM,

BY TRENTANOVE OF ROME.

THE productions of this young sculptor exhibit many of the best characteristics of the Italian style of modelling of the Cinque-cento period; and he has unquestionably attained a facility and delicacy of handling, together with a breadth of style in the conventional treatment of foliage and architectural decorations, which afford an admirable illustration of the style of art which we propose to trace historically in the present article.

It has been long desirable that the purity of composition and graceful variety which distinguish the monuments of the great masters of decorative design in Italy should be more generally appreciated in this country; and it is, therefore, to be esteemed a fortunate circumstance that Signor Trentanove has permanently established himself in England.

Like every other phase of art characterised by extreme refinement, the progress of Cinque-cento sculpture has been slow; and it is through the labours of many generations of artists that we are enabled to trace its progressive developement. From the stiff acanthi and other features of the rude carvings of the Lombard masters—such as those of San Michele and other churches at Lucca—an uninterrupted chain of modifications may be traced, until we realise the playful treatment of conventional foliage which characterises the best masters of Cinque-cento art. The successful efforts of those artists were, in fact, carried on but in pursuit of the light of classic art, of which the Lombard sculptures reflected the last fading rays.

For the earlier links of this chain we must refer our readers to Cicognara's elaborate "Storia della Scultura," and Seroux d'Agincourt's "Histoire de l'Art par ses Monuments;" but taking up the narrative from the impulse given to the art in Italy by Nicola di Pisa, we may follow succinctly the steps which led to the ultimate perfection of the style under the immortal Sansovino.

The commencement of the thirteenth century was distinguished by the birth of the great Pisan Reformer, in whose various works we find the *naïveté* of action of Greek and Lombard art struggling with aspirations for the refinements of a more ideal style. In those of his son, Giovanni Pisano, much more of the Gothic sentiment—that of a happy tranquillity, combined with extreme purity and tenderness—is to be recognised. This awakening spirit of an art which, though Gothic in its details, bore still a powerful impress derived from the atmosphere of classic tradition in which its authors lived, spread rapidly throughout Italy.

At Rome, about the year 1300, the family of the Cosmati embellished the churches of the capital with many graceful specimens of ornamental carving,—principally in tombs, tabernacles, ciboria, &c. Somewhat later, Massuccio flourished at Naples; and at Venice, Filippo Calendario, whose beautiful capitals and ornaments of the old palace of the Doge have been the theme of admiration for every writer from Cicognara to Ruskin.

About the latter end of the fourteenth century a new spirit seems to have arisen, more particularly in Tuscany. The Gothic style of sculpture, which in that district had found favour in the eyes of Giotto, Orcagna, Andrea Pisano, and other artists, almost entirely disappeared before the more direct imitation of the antique, which was mainly introduced by Jacopo della Quercia, the remains of whose extraordinary fountain at Sienna bear all the characteristics of the purest style of Roman workmanship. Not content with imitating classic sculpture, Della Quercia—or, as he was subsequently called, from his great work, Della Fonte—exhibited in many of his productions a singular *naïveté* in imitating "the life." Thus, in his exquisite monument of Illaria

di Caretto at Lucca, several of the *puttini*, or children, who bear the festoons which decorate the sides of the tomb, display peculiarities of infantine distortion which unquestionably prove the artist's direct imitation of nature. The career of Della Quercia may be regarded as the turning point in the history of Italian ornamental sculpture, as he was the first of the actual Cinque-centists,—that is to say, the artists whose works confer so great a lustre upon the fifteenth century.

This distinguished sculptor was, however, far surpassed in grace, in dexterity, in the imitation of nature, and in a happy mastery over ornamental combination, by Lorenzo Ghiberti, one of his immediate followers. Donatello, again, imparted a life and vigour to the art, which, in spite of all their beauty, were often wanting in the compositions of Ghiberti; and the qualities of both these artists were happily united in the person of Lucca della Robbia, who, during his long life (which extended from 1400 to 1480), executed an infinity of works, the ornamental details of which were carried out in a style of the freest and most graceful analogy with the antique. In the person of Filippo Brunelleschi the talents of the sculptor and the architect were combined. The former are sufficiently evinced by the excellence of the trial-piece in which he competed with Ghiberti for the execution of the celebrated gates of San Giovanni Battista; and the latter by his magnificent cathedral of Santa Maria delle Fiore at Florence. This combination of architectural and sculptural ability was, indeed, a distinguishing feature of the period. Figures, foliage, and conventional ornaments, were so happily blended with mouldings and other structural forms, as to convey the idea that the whole sprang to life in one perfect form in the mind of the artist by whom the work was executed.

A development of taste coincident with that noticeable in Tuscany took place at Naples, Rome, Milan, and Venice. At Naples, the torch that was lit by Massuccio was handed on by Andrea Ciccione, Bamboccio, Monaco, and Amillo Fiore.

At Rome, the opulence of the princes, and the great works undertaken by the successive Pontiffs, attracted to the Imperial City the highest ability procurable; and hence it is that in the various palaces and churches fragments of exquisite decorative sculpture are still to be met with. Bramante, Baldassare Peruzzi, and even the great Raphael himself, did not disdain to design ornaments for carvers, of the purest taste and most exquisite fancy. Of the perfection attained in this department of art by the last-named artist the celebrated wooden stalls of the choir of San Pietro dei Casinensi at Perugia will long remain unquestionable evidence. The carrying out of these carvings by Stefano di Bergamo does full justice to the admirable compositions of Raphael.

At Milan, the important works of the Duomo, and the Certosa at Pavia, created a truly remarkable school of art; among the most celebrated masters of which may be noticed Fusina, Solari, Agrati, Amadeo, and Sacchi. The sculptor's talent had long been traditional in that vicinity, and there can be no doubt that these artists embodied in the highest forms the lingering traditions of the *maestri* Comaschi, or Freemasons of Como; from whose genius many of the most celebrated buildings of the Middle Ages derived their highest graces of adornment. Of all the Lombard Cinque-centists, however, the highest admiration must be reserved for Agostino Busti, better known as Bambaja, and his pupil Brambilla, whose exquisite works in arabesque at the Certosa must ever remain marvels of execution.

At Venice, the first great names which call for notice are those of the Lombardi, through whose talents that city was adorned with its most famous monuments. They were followed by Riccio, Bernardo, and Domenico di Mantua, and many other sculptors; but their lesser glories are altogether eclipsed by those of the great Sansovino. At Lucca, Matteo Civitale (born 1435, died 1501) fully maintained the reputation of the period. Returning to Tuscany, we find, towards the close of the fifteenth century, the greatest perfection of ornamental sculpture. The names of Mino da Fiesole—the greatest of the celebrated school of the Fiesolani,—Benedetto da Majano, and Bernardo Rossellini, bring to our recollection the exquisite monuments which abound in the churches of Florence and the other principal towns of the Grand Duchy. These artists excelled alike in wood, in stone, and in marble; and their works have been surpassed in this style of art only by those of two individuals. Of these, Andrea Contucci, better known as the elder Sansovino, was pre-eminent in his art; and it would appear impossible to carry ornamental modelling to greater perfection than he has exhibited in the wonderful monuments which form the pride of the church of Santa Maria del Popolo at Rome. His pupil, Jacopo Tatti, who subsequently took his master's name, may be regarded as his only rival. He shone no less as an architect than as a sculptor, and his genius is displayed alike in the Cornaro Palace, the Library of Venice, and his wonderful bronze doors to the sacristy of St. Mark.

After the death of this great master the art attained no farther progress.



J. C. BUDGEON DEL.

M. DIGBY WYATT DIR. & C.

F. MORAS III. F.

A GROUP OF ENAMELS FROM THE ROYAL MANUFACTORY AT SEVRES.

LONDON, PRINTED AND PUBLISHED APRIL 1852 BY DAY & SON LITHOGRAPHERS TO THE QUEEN

GROUP OF ENAMELS,

FROM THE ROYAL MANUFACTORY AT SÈVRES.

THE success which has attended the revival in France of the art of enamel, was admirably illustrated in the Great Exhibition by the objects contributed from the Royal Manufactory of Sèvres. At that establishment, all the most admirable processes of the Middle Ages have been successfully imitated, and the highest appliances of modern science and art have been brought to bear in equalling, if not surpassing, the most beautiful works of Leonard de Limousin, Courtois, and other celebrated artists of the age of Francis I. By the chemical knowledge and industrial skill of the late M. Lambert, the practical department of the art of fabricating various vitrified pastes was enriched with many new combinations; but it has been reserved for M. Ebelman, and his coadjutors in the Royal Manufactory, to carry to perfection the improvements so introduced.

When we recall the general apathy to the productions of the Middle Ages which existed at the period of the Great French Revolution, and the rage which then obtained for works of classical antiquity, we cannot but be proportionately struck by the efforts of M. Alexandre Lenoir to kindle the enthusiasm of his countrymen for the arts and monuments of their ancestors. In the rich collection of historical relics which M. Lenoir was enabled to bring together in the ancient convent of the Petits-Augustins, were included many of the most magnificent specimens of Limoges enamel; particularly those with which the tomb of Diana of Poitiers had been decorated.

At the beginning of the present century attention was especially called to monuments of this description, by M. Willemin's "Monumens Français inédits," and the intelligent remarks of M. Potier, accompanying the engravings. It is to M. Sommerard, however, that the French are indebted for the most copious, learned, and enthusiastic illustration of these, as well as of many other arts of the Middle Ages. In the collection commenced by that gentleman in the year 1807, and which is now deposited in the Hôtel Clugny, at Paris, numerous enamels, both of the earlier and later schools of Limoges, are exhibited gratuitously to every class of the population. To the names of the above-mentioned *savans*, whose liberality and zeal have so greatly enriched the industrial arts of their country, may be added those of M. Sauvageot, M. le Comte du Pourtales, M. Debruge Dumesnil, the Duc de Luynes, and the Prince Soltikoff.

Instructed by the writings of the authors, and by the study of the collections, referred to, the artizans of Sèvres have acquired a facility and command of manipulation in the art of enamel which has rarely been surpassed. While the general forms of the objects upon which their skill is habitually exercised have been derived from a careful study of the most beautiful specimens in the above museums, the precise arrangement of those forms, and the details of the ornamentation, are both original and eminently graceful.

The process by which the objects represented in the accompanying plate have been executed, consists in the formation of the article in thin copper. In flat objects the painting is executed on plates, which are subsequently mounted so as to produce the *coffrèt*, or other object desired. The surface of copper is in all cases coated with a vitreous paste, in the composition of which calx of lead, tin, and occasionally a little manganese, form the principal ingredients. The covering thus applied is white, clear, extremely hard, and fusible only at a very high temperature. It is applied on both sides of the copper, in order to prevent the

GROUP OF ENAMELS.

distortion which would ensue from the contraction of the paste in cooling, if applied on one side only. On the white ground thus prepared for the reception of ornamental painting, the artist proceeds to float over, in transparent enamel, whatever tints he pleases, care being taken that the metal oxides which form the colouring matter are mixed with such *frits* as shall liquefy at a lower temperature than that which would suffice to disturb the condition of affinity of the particles of the white enamel which forms the base. When gilding is employed to heighten the effect, it is usually covered with a thin vitreous glaze, which perfectly protects it from tarnishing, and imparts that extraordinary brilliancy which the decorations of many ancient enamels have maintained to the present day.

The peculiar style, in imitation of which the objects we engrave have been executed, is that which was practised by Jean Courtois, and other artists of his school; which immediately succeeded that of Léonard de Limousin, the great reviver of the art in the middle of the sixteenth century.

In order to fully appreciate the characteristics of the above-mentioned schools, it will be necessary to trace the progress of the art of enamelling from an early period; and as we contemplate pursuing the subject in subsequent notices, we shall content ourselves in the present with describing only the earliest periods of the art.

The archæology of the subject has been admirably treated by MM. Texier, Maurice Ardent, Potier, Labarte, Ferdinand Serés, Dussieux, Paul Lacroix, Du Sommerard, and other French writers, as well as by Mr. Albert Way, Mr. George Isaacs, Mr. Franks, Mr. Henry Shaw, and Mr. W. H. Rogers. As the result of their researches, we may assume that the practice of engraving cavities in copper, and filling them with vitreous pastes, which were subsequently fused by the action of heat, was generally known to the Gauls, and to the Celtic inhabitants of Britain and Ireland. This belief rests, in part, upon a remarkable passage in Philostratus, who lived during the reign of Severus,—that is, in the earlier part of the third century. This writer gives a vivid description of the chase, and mentions the horses employed in it as being decorated with harness, enriched with gold and many colours: “for,” he remarks, “the barbarians of the regions of the ocean are skilful, as it is said, in fusing colours upon heated brass, which become as hard as stone, and render the ornament thus enriched durable.” The fact thus commemorated by the historian receives ample corroboration in the curious relics which have been from time to time discovered in France and in the British islands. Most of these are either personal ornaments—such as fibulæ, &c.—or apparently horse-trappings and chariot-fittings. The pastes are usually opaque, the principal colours being red and yellow. The design is generally of a barbaric character; and although one fragment in the possession of Mr. C. Roach Smith displays unquestionable evidences of Roman design, that specimen must be regarded as almost unique.

Contemporary with the highest development of the art of enamel among the “barbarians of the regions of the ocean,” a curious variety of the same art appears to have sprung into existence among the Greeks, soon after the removal of the seat of empire to Byzantium. This is usually known as filagree, or *cloisonné* enamel, and consisted of a thin plate of gold, on which small ribands of the purest gold were so arranged, and secured by solder, as to follow the lines of a pattern previously traced upon the plate, and at the same time to divide the whole surface into a number of compartments, or little cells. Various fragments of coloured glass were then heated red-hot, and thrown into brazen vessels filled with water; and thus partially pulverised, they were reduced in a mortar to a state of powder. With these coloured powders the compartments formed by the filagree were filled up, and the work thus prepared was subjected, in a “muffle” furnace, to the heat necessary to fuse once more the coloured glass. When the enamels had been allowed to cool and harden, the whole was rubbed down and polished, as gems are; and the effects produced by this delicate process were extremely elaborate and beautiful.

Many interesting specimens of *cloisonné* enamel still exist in this country; the most celebrated being the well-known Alfred Jewel in the Ashmolean Museum at Oxford, and an exquisite little brooch in the Hamilton collection of gems in the British Museum. But the most remarkable instance of this kind of work is the celebrated *palliotto*, or altar-frontal of St. Mark's, Venice,—a work which was executed by the Greeks of Byzantium for the Doge Orseolo at the end of the tenth century.

In our next notice on this subject we shall trace the development of the art in France, and in the other countries of Europe, during the Middle Ages.



BOOK BINDING IN MOROCCO AND ITALY BY GATTENOT & CO.

LONDON PRINTED AND PUBLISHED APRIL 1884 BY DAY & SON LITHOGRAPHERS TO THE QUEEN

BOOKBINDING AND INLAYING,

BY BATTEN OF CLAPHAM.

It may be safely affirmed, that the art of bookbinding in this country within the last fifty years has never been surpassed by that of any other period in its history. The names of Herring, Lewis, Mackinlay, Hayday, and many others, deserve to be cited in future ages along with those of Grolier, Padaloup, De Rome, and Roger Payne; and among the works in this department contributed to the Great Exhibition few were more agreeable in design, or more admirable in workmanship, than those of Mr. Batten, a specimen of which we now engrave.

As the subject of bookbinding possesses much historical and artistic interest, we propose to notice successively the general nature of the operations it involves; the history and progress of the art; and such particular kinds of bookbinding as modern ingenuity has supplied as varieties from ordinary leather work.

The processes of binding may be divided generally into three stages;—namely, “making-up;” “covering;” and “finishing,” or decorating. The sheets, as they leave the printers, having been folded by females, are “gathered” into the succession necessary to form complete books. They are then collated, and subjected to a “rolling press,” by passing through which they acquire the compactness necessary to a well-bound book. The sheets are then sewn, by a thread passed successively through the middle of each sheet, to three or more strong bands, running transversely across the back of the book. This operation is also performed by females, with the aid of a simple apparatus called a “sewing-press.” The book is thus “made-up,” and ready for “covering.” The case, or complete cover, consists of the *boards*, or stiffening substance for the sides, and the leather, technically termed the *cover*, which, at the same time, envelopes the boards and forms the back.

After sewing, the back of the unbound book is glued, to render the cohesion of the sheets more perfect; and by the skilful application of a hammer the binder gives a graceful convexity to the back, and forms the edges into grooves to receive the boards. The book being held in a cutting-press, the top and bottom edges are cut perfectly smooth with a pointed knife, or plough. To produce upon the front, or “fore-edge,” a convexity corresponding with the curve of the back, it is necessary to render the latter again temporarily flat. The front edges are then cut smooth, and the back, resuming its rounded form, necessarily produces the desired curvature in front.

The mill-boards for the sides being carefully cut to the proper size, they are attached to the book by passing through them the ends of the bands to which the sheets were sewn. The next operation is that of putting on the cover, whether of roan, calf, morocco, or russia leather; and in this the dexterity of the skilful workman is displayed. The leather is cut sufficiently large to turn over the boards, and its edges are pared thin to avoid any unsightly appearance when completed. It is pasted to the boards with the greatest nicety and smoothness, and particular care is taken to turn in the corners neatly. In “half-bound” books, the backs and corners only are covered with leather, and the main portion of the sides with marbled paper or cloth. The best kind of books are made to open with what is termed a “hollow back;” an ornamental “head-band” is added, and raised “bands” are formed by strips of cord glued across the back. The edges are then “sprinkled,” “marbled,” or gilt. Without dwelling upon these matters of detail, we may proceed to notice briefly the third stage of bookbinding,—that of “finishing” or decorating, in which the taste of the artist is called into

requisition. The lettering, fillets, scrolls, arabesques, and other ornaments which constitute the external decoration of books, are impressed upon the leather in the desired patterns by brass tools, which are slightly heated to render the impression lasting. Fillets and running sprigs are engraved in relief upon the edge or periphery of a brass "roll," and this being wheeled carefully over the surface of the book, with the necessary pressure, leaves a corresponding indented pattern. In elaborately ornamented books many hundreds of separate tools may be employed. Where the pattern is not gilt, the operation is called "blind tooling." To apply the gold-leaf, it is necessary to prepare the leather with size and white of egg; the gold is lightly laid upon the surface, and the pressure of the tool causes it to adhere to the pattern, the superfluous particles being rubbed off. The beautiful illuminated appearance shown in Mr. Batten's elegant specimen is produced by what is termed *inlaying*, which consists in attaching to the surface of the book small pieces of differently-coloured leathers, which are pared extremely thin for the purpose.

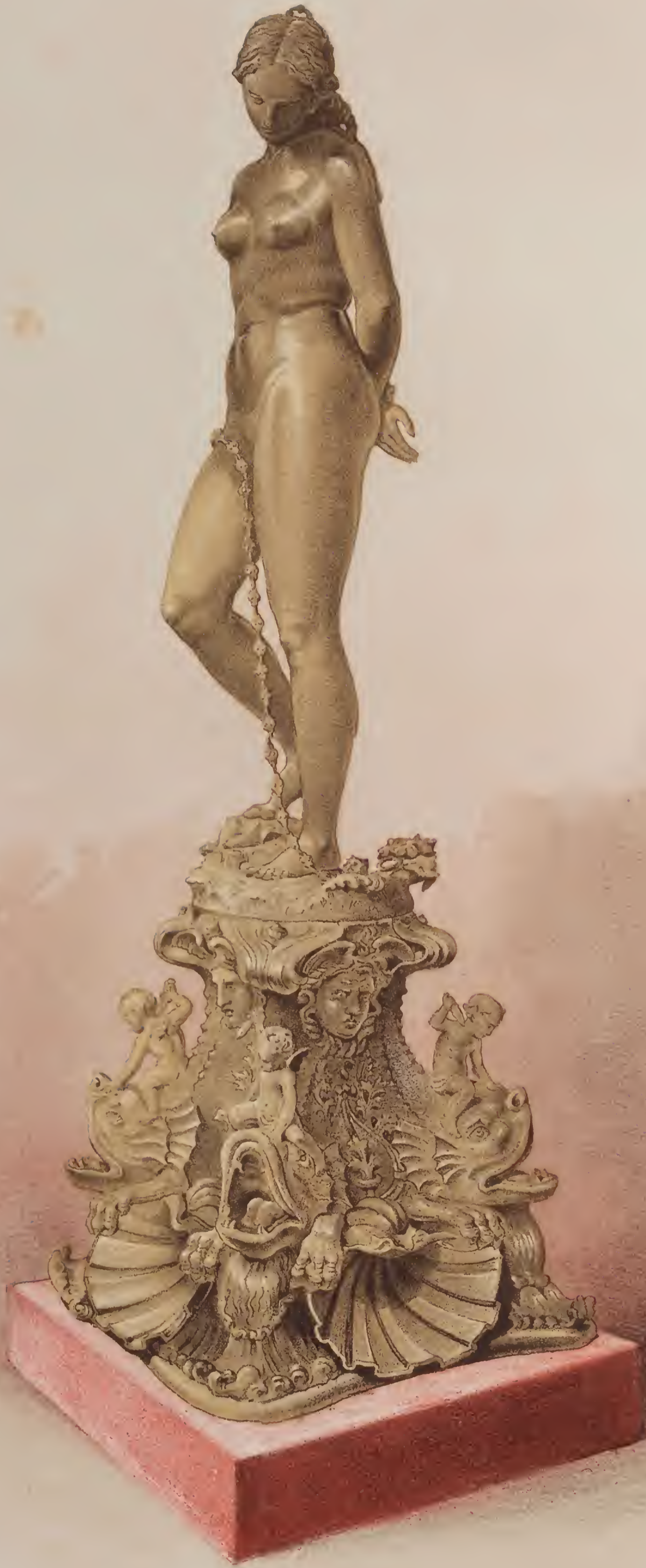
Reserving for the present a notice of the cloth and embossed bindings which have recently proved so successful, we must now briefly allude to the history of ornamental bookbinding. The ecclesiastics of the Middle Ages bestowed upon their exquisite illuminated manuscripts a corresponding splendour of external decoration. Carved oak and ivory were used for their covers, and these were elaborately ornamented with gold, silver, and enamels, and frequently enriched with pearls, rubies, and other precious stones. As we shall hereafter engrave a gorgeous book-cover, assimilating in its character to those of the Middle Ages, we shall take another opportunity of describing their extraordinary magnificence.

Richly-coloured velvets, vellum, calf and morocco leather, were used for covers at an early period, but bookbinding in the ordinary sense of the word, *i.e.* of a leather cover for a printed book, may be assumed to date from the invention of printing. In an able essay by Mr. Joseph Cundall on "Ornamental Art as applied to Ancient and Modern Bookbinding," read to the Society of Arts on the 10th of November, 1847, the author observes that "there are many printed books still in good preservation that were bound in calf with oaken boards at the end of the fifteenth and beginning of the sixteenth centuries. In England, the earliest binding with ornament was about the time of Henry VII., when we find the royal arms, supported by two angels, the heraldic badge of the double rose and pomegranate, the *fleur-de-lis*, the portcullis, the emblems of the Evangelists, and small ornaments of grotesque animals." In a statute of Richard III. (1483) it is expressly recited, that there were then "a great number of the king's subjects living by the craft and mystery of binding of books, and well expert in the same." About 1538 Grafton undertook to print the Great Bible, and for that purpose brought from Paris not only printing-presses, type, and printers, but bookbinders also; and when it is remembered that there were seven large editions in folio of the sacred volume within three years, it is obvious that the binding of them would alone suffice to give importance to the art.

Mr. Cundall states, that the stamping of tools in gold appears to have been first introduced in this country in the reign of Henry VIII.; and some beautiful rolls, probably from Holbein's designs, were used, as well on the sides as on the gilded edges of books still in existence. The sides of books of the period now under our consideration were generally of oaken or beech-boards, covered with leather, and furnished with metal bosses at the angles. They were sometimes embossed with figures of saints in niches, and occasionally with foliage in the intervening compartments. Heraldry is occasionally introduced, and the designs display considerable ingenuity. They generally cover the whole of the field; the division of the side into centre and margin being of Italian origin.

With the reign of Elizabeth and her learned successor considerable luxury was introduced in bookbinding, and many an old volume of that period still attests the skill of English binders. The Great Rebellion impeded the progress of the art; but after the Restoration, renewed energy was infused into it. The fashions of the Continent were then freely introduced, and imitations of the most celebrated Italian and French bindings were executed with great dexterity. Lighter covers superseded the cumbrous wooden ones before used; gaily coloured leathers were employed; gilding took the place of the simple relieved work of the ordinary monastic binding. Contemporary with the formation of Sir Thomas Bodley's and other celebrated libraries, a marked improvement in the art was manifested; and the good preservation of those collections may be mainly attributed to the care bestowed upon their binding.

It is not, however, till we approach comparatively modern days that the names of the best workmen have been preserved to us; and the earliest that we are enabled to cite as displaying any special taste is that of Roger Payne. In our next article on the subject we shall notice the works of this celebrated bookbinder, and complete our historical sketch of the art both in this country and in France and Italy.



ANDRÉA DELLA ROTONDA S. MARCO DI VENEZIA. STATUA DELLA VENERE
IN BRONZO. ALTEZZA TOTALE 1,80 METRI.

PRINTED AND PUBLISHED BY H. B. DODD, 15, SOUTH BROADWAY, LONDON.

PLATE LIII.

ANDROMEDA,

A STATUE IN BRONZE, BY JOHN BELL OF LONDON, CAST BY THE COALBROOKDALE COMPANY.

AMONG the numerous British sculptors who contributed to the Great Exhibition, few manifested more untiring industry or better taste than the author of the statue now engraved. It may be truly said, that the life of an artist is best written in his works; and fortunately, if in no other respect, Mr. John Bell has furnished us in his productions with ample materials for his biography. The varied nature of his works affords an admirable picture of the versatile genius of their producer. While such efforts as the "Eagle Slayer," and the statue of "Falkland," prove his lofty appreciation of the vigorous and the sublime, his well-known "Dorothea," the "Babes in the Wood," and the figure which we now engrave, show that he leans also to "the soft side of the heart," and possesses the happiest feeling for the graceful and the picturesque.

Mr. Bell's practical efforts to introduce a higher style of design and modelling into the productions of the great manufacturing establishments of the country, have, in many cases, been crowned with very remarkable success; and if a collection could be made of the various objects over which his teeming imagination and skilful hand have cast the witchery of beauty, they would alone suffice to form an exhibition of great interest and value.

It is fortunate for Mr. Bell that his efforts for the improvement of art-manufactures have been so admirably seconded, by those to whom he has consigned the carrying out of his ideas. For instance, it would be difficult to find a specimen of bronze-casting more ably executed, or more entirely free from defects, than the statue and its pedestal which we now present to our readers, and which represents one of the favourite themes of imaginative art;—the unfortunate, yet fortunate, Andromeda. While, therefore, a high meed of praise must be awarded to Mr. Bell for the talent he has displayed in this composition, we must at the same time recognise the skill with which the processes of founding have been carried out by the Coalbrookdale Company, and the dexterous manipulation of the chasers whom they employ.

In one respect the subject of our engraving offers a valuable suggestion, which it is desirable that the artists of this country should generally appreciate. We allude to the congruity which exists between the statue and its base. In the ornaments of the pedestal, not only the story itself, but its instructive moral, are effectively told. The little Cupids who triumph over the Dolphins, recall the source from which the demigod derived the strength and courage which enabled him to subdue the Minotaur; in whose destruction the poet conveys only an expression of Love triumphing over difficulties and dangers. The introduction of the Medusa's head, the shells, and other accessories, gracefully identify the pedestal with the statue it supports. The more common mode of carrying out the connexion which Mr. Bell has so ably realised, would have been by the simple insertion, around the base of the pedestal, of bas-reliefs representing the actual incidents of the legend; but in that case it would have been difficult to obtain the pyramidal line, which so well leads up to the vertical *pose* of the figure.

Mr. Bell's productions exhibit in a striking degree the ordinary characteristics of the English school of sculpture, the forms of which appear to be governed rather by a tasteful selection from fine natural types, than by a system of idealising, with a view to the elimination of an imaginary perfection of form. While,

ANDROMEDA, A STATUE IN BRONZE.

therefore, in English sculpture, the refinement of Greek art may be occasionally wanting, we are never chilled by the presence of a perfection which we know does not exist in nature: and thus it is satisfactory to observe that, although occasionally defective in their embodiments of ideal force and grandeur, our native sculptors rarely fail to delight us by a sweetness and elegance of outline and modelling, which constitute the great charm of their productions.

When we recur in memory to the great names by which English sculpture has been dignified, and through whose influence its school has been formed, we perceive among them, even at the outset, the elements of remarkable originality. The genius of Evelyn, tutored as it had been, by long residence in Italy, to a fashionable admiration of the frittered graces of the school of Bernini, could yet recognise the freedom and talent displayed in the earliest works of Grinling Gibbons. Although the scope of this artist's efforts was, to a great extent, confined to works of a cabinet character, we still find so marked and independent a style in everything which he touched, that, so far as we have been enabled to observe, there does not exist in any other country a series of productions at all assimilating to those of Gibbons.

Through the influence of Cibber the gods and goddesses of Rome were imported into the stiff and stately gardens of the middle and latter part of the seventeenth century. When, however, that artist emancipated himself from the traditions of Lower Roman art, he manifested a genius and power of expression which has rarely been surpassed. In his two celebrated figures of Madness and Melancholy, he evinced a power which was never attained by his more skilful successor, Roubiliac. The latter, although perhaps seldom excelled in handling the chisel, has a certain dramatic mannerism, which impairs the effect of his most ambitious compositions. Thus, although some portions of his celebrated monument to Mrs. Nightingale exhibit the most consummate skill, the whole of that work is characterised by a frantic action, which it would transcend the power of the most accomplished artist to realise in a dignified manner. It was in his busts that the greatest success of Roubiliac was attained.

Wilton, who occupied a prominent position in the profession after the middle of the eighteenth century, was rather a skilful manufacturer than an able artist. Facility rather than excellence stamps the character of his works.

In William Banks we perceive the germ of that poetic taste which was afterwards carried to such remarkable perfection by the immortal Flaxman. Though by no means a prolific artist, still in his bas-reliefs, and in several of his statues, Banks displays a tenderness of fancy and a beauty of execution which were scarcely equalled by any contemporary sculptor in Europe. There can be no doubt that his exquisite monument to the only daughter of Sir Brooke Boothby, in Ashbourne Church, Derbyshire, suggested those graceful monuments of a somewhat similar character which, at a later period, reflected so high a degree of credit on the reputation of Stothard and of Chantrey.

It was, however, rather to the genius of Joseph Nollekens, than of Banks, that Chantrey was indebted for a model and an instructor. Few men understood better than Nollekens the conventionalities which were necessary to insure a lively expression of vitality in his busts; and it would be difficult to find, among the most celebrated works of antiquity, any representations of an iconic character more replete with life and intelligence than the works of this artist.

In the more ornamental departments of the art John Bacon occupied an important position. His numerous monuments to our English worthies display versatility of mind and a ready hand. It is rarely, however, that we can find in his works any marked departure from the traditions of commonplace. It was unfortunate for Bacon that the allegorical style in sculpture was so popular during the latter part of the eighteenth century. Had the public taste led him to adopt a severer style of composition, it is probable that his talents as a ready modeller might have produced more valuable memorials.

Notorious as the notices of Horace Walpole and of Allan Cunningham have made the reputation of Mrs. Damer, we fear that their pens have carved for her a more worthy and enduring monument than her own chisel could ever have produced. There is, however, manifested in her works, as in those of the various masters we have enumerated, a marked originality, which distinguishes English productions in sculpture from those of the contemporary French and Italian schools.

In a succeeding article it will be our pleasing duty to trace still farther the developement of this originality, in the works of the various artists whose precept and practice may be regarded as the profession of faith of the English sculptors of the present day.



A LOOKING-GLASS FRAME, CARVED IN EBONY,
FROM CHINA.

THE interesting object we now present to our readers, at once transports us to the mysterious region in which so many of the useful and ornamental arts first had their origin. The country in which the art of printing, the use of gunpowder, and of the mariner's compass, the manufactures of silk and porcelain, have been prevalent from the earliest ages, must ever command our respect and excite our curiosity.

Except from the vague reports of Marco Polo, Purchas, and some few other travellers being for the most part Jesuit missionaries, and from the minor productions which occasionally reached Europe, little was known, until the present century, respecting Chinese art and industry. The celebrated architect of Somerset House, Sir William Chambers, it is true, on his return from China, more than a hundred years ago, endeavoured to reproduce in England the architectural forms which had made a strong impression on his fancy, during his residence as a young man in that country. In 1757 he published a folio volume of "Designs of Chinese Buildings, Furniture, Dresses, &c., engraved by the best hands," from his own sketches and measurements. The Pagoda in Kew Gardens was erected from his designs in 1762, and in the following year he published another folio volume of "Plans, Elevations, Sections, and Perspective Views of the Gardens and Buildings at Kew." Sir William's knowledge of Chinese art was, however, very limited; and by adopting too readily the information given to him by others, he incurred not only severe lampooning by anonymous writers, but the graver reprobation of Lord Macartney; whose embassy to China tended more than any previous event to enlarge our acquaintance with the productions of that extraordinary empire. That expedition led to the publication of the valuable works of Sir George Staunton and Mr. Barrow; and the restrictions which so long excluded Europeans from all intercourse with the Chinese having at last been removed, much valuable information has been diffused by the works of Mr. Clarke Abel, Mr. Davis, Dr. Gutzlaff, and many others.

In examining the characteristics of Chinese ornamental art, it is difficult to discover what classes of natural objects have been selected, as suggestive of the conventional treatment adopted by the designers; since, in almost every article produced, the leading outline rarely recalls anything more refined or elevated than the rare fat Josses, and singular monsters of the old dragon china. The highest effort of the artists appears to have been directed to the accumulation of eccentric and bulbous scrolls and nodules, together with intricate and elaborate geometrical patterns. In this latter variety of design, they display considerable ingenuity and dexterity. Proverbial for their skill in direct imitation, and minute and careful copying, the Chinese are eminently successful in the representation in colour of fishes, birds, insects, flowers, foliage, and similar objects; and the taste with which they apply such ornaments to variously-moulded surfaces indicates great refinement of perception, if not fertility of imagination. Mr. Barrow observes, that "their works of sculpture are defective in form, attitude, and proportion. They have, indeed, the art of cutting stone, wood, and ivory, remarkably sharp and clean; but their productions are sometimes distorted and unnatural." As the probable cause of the deformity of their representations of the human figure, the same writer dwells upon that aversion to the practice of anatomy, which the Chinese carry to a remarkable extent.

Within the last ten years the artistic productions of China have been rendered familiar to us by the collections which have been brought to England, and in the Great Exhibition of 1851 they were presented to

us in a striking and very favourable point of view. It would be superfluous, in the present notice, to dwell upon the skill of the Chinese as workers in porcelain and metal, or upon their ability as carvers of ivory and hard woods: the former is proverbial; and the latter is sufficiently demonstrated by the beautiful concentric balls and elaborate chessmen in those materials, which have so long been popular marvels of dexterous execution. In future articles we shall have occasion to notice the bronzes and enamels of China, and the admirable vases which they form in that rare and beautiful material,—jade-stone. At present we may limit our remarks to the perforated carving so profusely employed in China, of which the accompanying Plate supplies a favourable specimen.

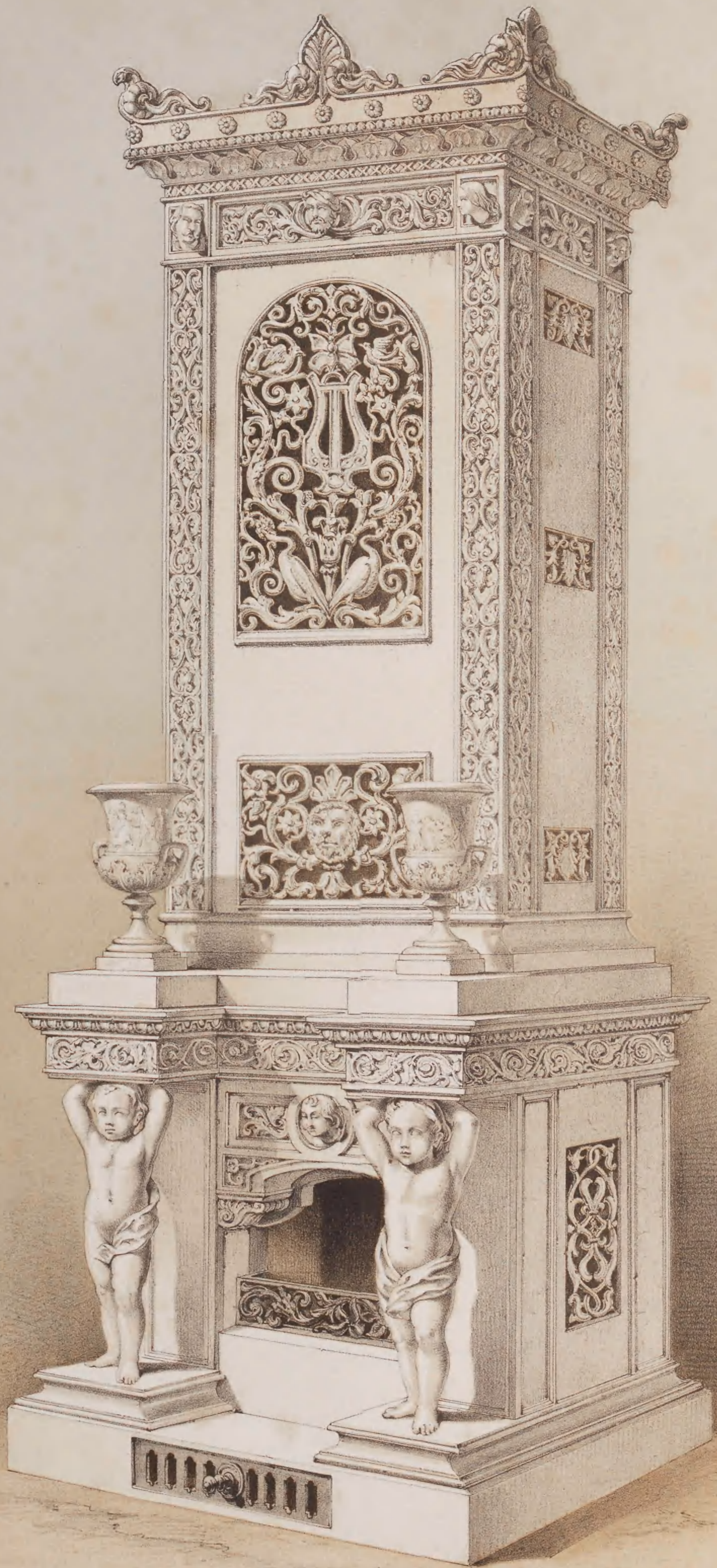
“Fret-work,” says Sir Wm. Chambers, “so common in the buildings of the ancients, is likewise very frequent in those of the Chinese;” and our earliest recollections of the “willow-pattern plate” illustrate its constant occurrence in their domestic architecture. Screens, lattices, porticoes, and verandahs of perforated woodwork, abound in all the edifices of the Celestial Empire. Of these the commonest assume rectangular forms, whilst the more costly and elaborate are diversified by figures of animals, birds, flowers, and fruits; the whole being coloured and gilt in a gay and rich, but, at the same time, harmonious manner. The Rev. G. N. Wright, author of the literary illustrations of “Allom’s Views in China,” observes that “the walls and ceilings of the dining-parlour are always decorated with fretwork, carved designs in hard woods, and brilliantly-coloured paper-hangings.” He adds that “the fronts of the principal apartments are open to the air, with the exception of a lattice-work, which is gilt and brightly painted.” To the same effect Sir William Chambers states that “the bottom or farther end of the room is entirely composed of folding-doors, the upper part of which are of lattice-work, with painted gauze, which admits light into the bed-room. These doors are neatly made of wood, having several characters and figures on them, and are sometimes richly varnished in red, blue, yellow, and other colours.”

The skill of the Chinese carvers finds constant employment in the decoration of cabinets, book-cases, tables, frames (such as that which we engrave), stands for vases, figures of animals, and an infinite variety of ornamental objects; and it is exercised alike upon pearl, ivory, ebony, and various kinds of wood. In illustration of the taste and industry of these artists we may especially mention two articles, which may be remembered in the Chinese department of the Great Exhibition:—“A bedstead of curious and finished workmanship, inlaid with ivory and mother-of-pearl;” and “A sideboard in carved wood, inlaid with ebony and incrustated with ivory, with eight elaborately-carved panels in yellow wood, representing trees, fruit, and animals.”

The windows of Chinese buildings are sometimes merely round or oval openings in the walls, with carved and gilt perforated frames. Others are formed by thin plates of pearl, horn, paper, silk, or gauze, and divided into panes of various shapes by wooden frames. Some of these present ingenious and tasteful patterns, recalling to the mind, though with less happy effect, the perforated windows of India and Tunis; of the latter of which we have already given an illustration.

With respect to the materials of which Chinese mirrors are ordinarily made, we may observe that glass is still a comparative rarity in the interior of the country. Sir George Staunton, in his account of Lord Macartney’s embassy, informs us that “there is no manufacture of glass in China, except at Canton, where, instead of fusing the rough ingredients, the manufacturer is satisfied with only melting broken pieces of that material and forming it into new shapes. The glass beads and buttons, of various forms and colours, worn by persons of rank, are chiefly made at Venice, and this is one among the remnants of the great trade which the Venetians formerly carried on with the East.” Spectacles are made of rock-crystal, cut by a rude process into thin laminæ; and although glass is sometimes used for the lanterns so common in the empire, sheets of paper, pearl, horn, or mica, are far more generally employed.

Ancient metallic mirrors, common in China before the introduction of glass, have been exhibited in England; and polished steel is still used there for the same purpose. In Mr. Allom’s work, already mentioned, there is an engraving of the Boudoir and Bedchamber of a lady of rank; in reference to which it is observed, that “glass mirrors have long been in use in China, although little progress has been made in the art of glass-making generally, the manufactures of Europe being largely imported. These chambers are often resplendent with looking-glasses, in some of which the external landscape and the passers-by are distinctly seen by the fair inhabitants, without the trouble of rising from their couches. The mirrors are of very thin and inferior glass, scarcely thicker than good English writing-paper, but are skilfully coated with an amalgam which renders them abundantly truthful in reflecting the features.”



1850-1851-22L

MURRAY WATT CIPRY

STOVE IN WHITE PORCELAIN BY HOFFMAN OF BERLIN

STAMPED AND PUBLISHED BY THE AUTHOR AT NO. 22, N. 4TH ST. N. Y.

STOVE IN WHITE PORCELAIN,

BY HOFFMAN OF BERLIN.

IN spite of the complacency with which all Englishmen habitually regard their own *fireside*, it has been frequently urged, and almost as frequently admitted, that there is scarcely any country in Europe in which the management of a *fire* is so popularly misunderstood. The quantity of heat commonly wasted by allowing the smoke and heated gases to escape without taking the slightest advantage of their caloric;—the pains usually bestowed on making the register opening (if there is one) sufficiently large not only to carry off the products of combustion, but to drain the room of its fresh air, and create a perpetual draught as well;—the provision made for keeping the lower parts of the chimney cool, so as to check the proper action of the draught and encourage the precipitation of soot,—all contrast most unfavourably with the ingenious and economical devices by which the Germans extract and utilise the heat-giving properties of their fuel, and at the same time benefit their health and their pockets: the former, by abolishing the chilly and insidious currents which in England so constantly induce rheumatism and catarrh; and the latter, by obtaining the greatest amount of comfort out of the smallest possible quantity of combustible matter.

The common German Stove is a very clever piece of contrivance. It usually consists of a large rectangular erection, formed of tiles about six or eight inches square, glazed on the outer face, and having a projecting rim all round the inner face of each tile; this allows of the tiles being built up like bricks set on edge, and they are held together by pieces of wire passed through corresponding holes in the rims of adjoining tiles. In constructing a stove of the common sort, a base rather less than a foot high is first formed with brick-work set in clay, and cased with the glazed tiles; a small space being left for the ashpit. On this base the fire-box is built with tiles and firebricks, and the outer enclosure of the stove is then carried up to the desired height with the glazed tiles, all the joints being closed with prepared clay. In order to prevent the smoke and heated air from the fire from passing off too rapidly into the chimney, the interior of the stove is subdivided by horizontal partitions formed with large flat tiles, which are supported by the projecting rims of the tiles forming the outside. The ends of these horizontal divisions being allowed to communicate alternately on one side of the stove and on the other, a continuous flue is formed, through the whole of which the smoke must gradually rise before it reaches the outlet to the chimney. In order to prevent the escape of the smoke through the joints between the tiles, the whole of the interior of the stove is well plastered with clay, which must be allowed to dry very gradually in the first instance; and then, by the action of the heat, it acquires a great degree of hardness, rendering the whole stove a very solid structure. The fire-box is generally large, as the fuel used is either wood or peat; and when once the fire is lighted in a stove, the fire-box is completely filled with fuel, so that a very great heat is speedily produced in the interior of the stove. The door being closed, air is only admitted in very small quantities to maintain combustion, so that but little fuel requires to be added subsequently. The non-conducting nature of the material of the stove causes the heat to pass but slowly from the inner to the outer surface, and thence into the room: consequently, the temperature of the outer surface of these stoves does not rise much above blood-heat; thus avoiding the vitiation of the air by its contact with highly-heated surfaces, as is generally the case with iron stoves.

The stoves of a superior class, for the manufacture of which Berlin has acquired a high reputation, do not differ in the principle of their construction from the common ones just described; but the tiles of which they are formed are of larger dimensions, and are moulded to a variety of forms, so as to make up stoves of elegant design. Care is always taken not to have any joints at the projecting angles of the stove, and in other parts they are so introduced as not to be conspicuous, and thus the stove has the appearance of consisting but of one piece. The mode of joining and securing the tiles in their place is the same as that already described. In these stoves the direction of the smoke channel necessarily depends upon the external form and design, so that frequently an alternately ascending and descending direction is given to the smoke, instead of allowing it to pass through horizontal passages. When stoves of this construction are intended to heat with coal, which is rarely the case in Germany, it is necessary to introduce small soot-doors to clean out the interior of the stove; but this is not required with the fuel in common use.

Stoves constructed of unglazed substances, such as inferior earthenware or terra-cotta, were common in Germany up to the end of the last century, but of late years they have been almost entirely superseded by those made up of *glazed* tiles. It was found not only that the glaze protected the surface of the object, rendering it much harder, but that, while it provided for more easy cleansing, it at the same time radiated more heat, and was thus both more economical and more ornamental than the old-fashioned article. At first the glaze was applied to objects executed in common clays of coarse "body," either black or of some dark colour, such as slate or deep red; but more recently fine earthenware, with a coating of a pure white hue, and protected by a colourless vitreous glaze, has been gradually taking the place of all other inferior materials.

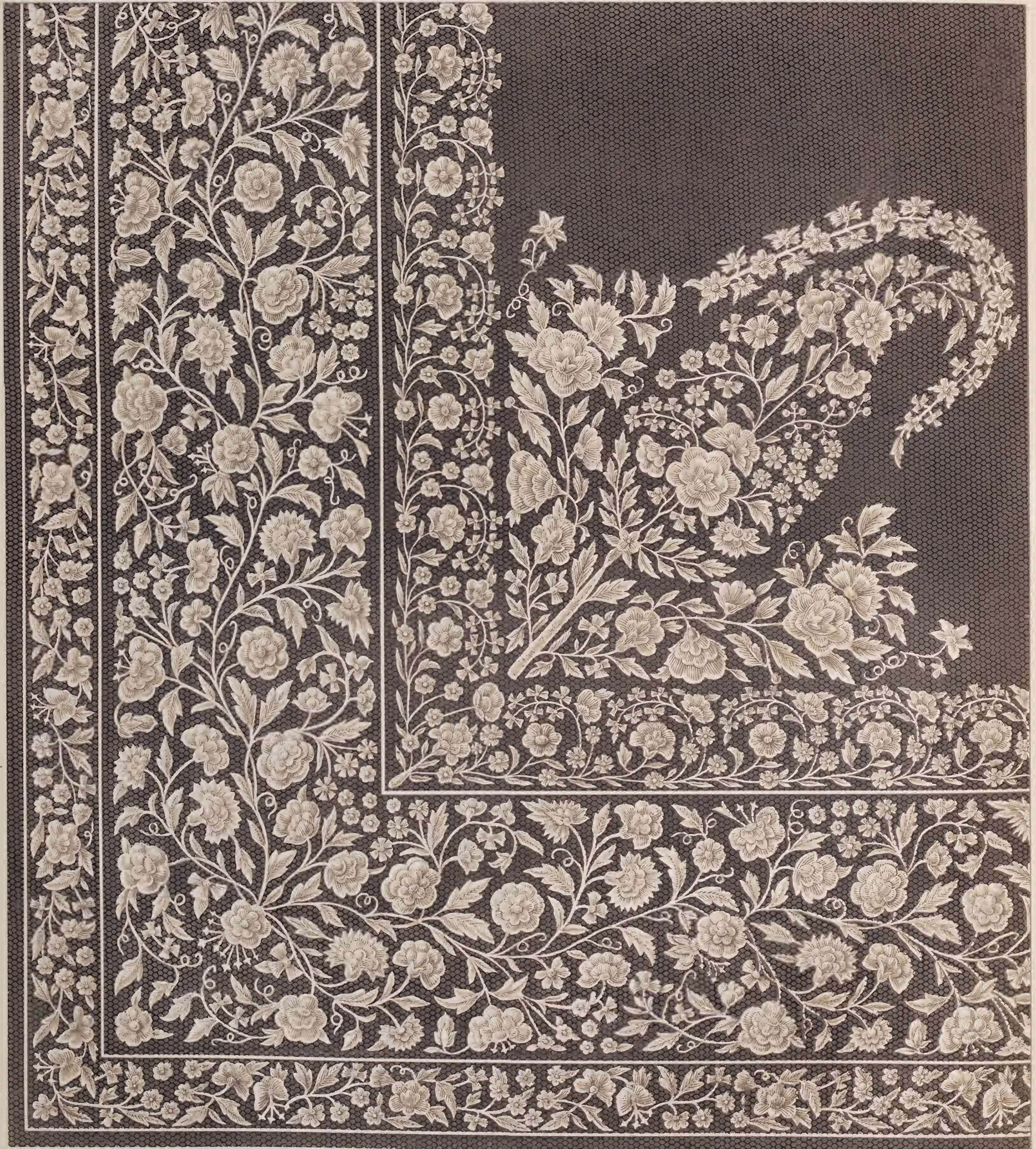
The great perfection to which the manufacture of this article had been brought in Prussia was for the first time publicly manifested at the Great Exhibition of Industry which took place at Berlin in the year 1844. A large collection of beautiful specimens was contributed to that display, and evidence was given that the manufacturers of the capital and its suburbs were far in advance of those of the Prussian provinces generally, and indeed of the rest of Germany.

In the Official Report of the Exhibition above alluded to, the productions of Messrs. J. F. Putsch, C. Hanisch, H. Petri, Cornelius Gorman, Ungerer, and particularly of T. C. Feilner and Co., are comprised under the more favourable list, and are honourably though briefly mentioned. The last-named house is to be especially regarded as occupying a prominent position in the history of the manufacture, and as having materially assisted in its development and consequent extension. This firm was established about thirty years ago by the late M. Feilner, to whom the credit may be awarded of having been among the first in Berlin who studied to combine elegance with utility in all the different branches of the potter's art. This happy union especially gained for his productions a sale not only throughout Germany, but in foreign countries as well. His success must in great measure be attributed to the assistance he derived from the universal talents of Schinkel, who supplied him with both advice and designs. Since the death of M. Feilner, the manufactory which he established has been carried on by Messrs. Zimmermann and Friese, on the same principles which originally procured its celebrity: those of seeking constantly the co-operation of the most distinguished artists and designers.

In the above-mentioned Report particular allusion is made to a large stove in the Renaissance style, executed by this firm for the Royal Palace at Hanover; and the manner in which the peculiar difficulties presented by the elaborate ornamental forms of the style were surmounted is spoken of with great praise: the evenness and purity of the white glazing being also alluded to as deserving particular notice. This firm has not confined its operations to the manufacture of stoves, but has produced also, with considerable success, various architectural ornaments—such as candelabra, consoles, columns, &c.—suitable to be introduced into the buildings of that great metropolis of brickwork and stucco, Berlin.

It is to be noticed, that this branch of industry is almost entirely confined to the north of Germany, and more particularly to Prussia, which was the only state the earthenware stoves of which were represented at the Zollverein Exposition of 1844.

In addition to the manufacturers of Berlin to whom we have alluded, the Report mentions several provincial houses, on the productions of which it lavishes many paragraphs of encomium. Among these are Messrs. J. Ackermann of Vetten; G. Oehler of Erfurt; Poehle of Bunzlau; C. W. Schubert and Son of Breslau; and S. Szerbynsky of Czarnikau.



NO. 1. EMBROIDERY IN WHITE SILK ON BLACK NET

LONDON: PRINTED AND SOLD BY THE DIRECTOR OF THE GREAT BRITISH MUSEUM, 1851.

INDIAN EMBROIDERY, IN WHITE SILK UPON BLACK NET,

FROM DACCA.

IN our last article on the productions of Dacca (Plate XLVIII) we promised to continue the subject by a notice of the needlework applied to their embellishment; and we cannot better fulfil that promise than in connexion with the beautiful object which is represented in the present Plate. We shall again avail ourselves of the recent "Descriptive and Historical Account of the Cotton Manufacture of Dacca," by Mr. James Taylor, who observes, that "the art of sewing in Bengal is almost entirely confined to the Mahomedan portion of the community. It is not practised among the Hindoos, except by a few persons, chiefly females, of the cast of *dhobee*; and it is a branch of industry in which they do not display any skill. Indeed, so little acquainted are the Hindoos with the use of the needle, that Dr. Buchanan states he is not aware of any Hindoo word for sewing, except that used for passing the shuttle in the act of weaving."

"Fine needlework or embroidery," as Mr. Taylor remarks, "appears to have had its origin in Egypt. The Israelites there learned the art, and excelled in it before they settled in the land of Canaan; and the Phœnicians and Greeks derived their knowledge of it from that country, and were the means of diffusing it among the nations of the West. It appears to have been extensively practised in Mesopotamia about the end of the ninth century. Embroidery is, indeed, an art for which that country has always been celebrated; and it is probable that from the banks of the Euphrates it was first introduced into Bengal."

Among other proofs that the Indian embroidery was originally derived from Mesopotamia, Mr. Taylor dwells upon the fact already mentioned, that the art is practised in Dacca only by Mahomedans,—the Hindoos confining the exercise of their wondrous skill to spinning and weaving. He also alludes to a tradition, that the needles formerly used at Dacca were procured from Bassora. "The different branches of needle work in India are chiefly practised by men, and are carried on as distinct trades. *Silai* (sewing) affords employment to a large body of *durzees* (tailors) of Dacca, who prepare a variety of turbans; skull-caps; jackets, with loose sleeves and open cuffs; long close garments, worn like shirts; double-breasted gowns, having the skirts plaited with folds; and bodices, spencers, and petticoats for females."

In reference to one of the most curious branches of Indian needlework, Mr. Taylor observes, as Moorcroft and other travellers have before him, that in "*rafu-gari*, or darning, the Mahomedans display a degree of manual dexterity almost equal to that exhibited by the Hindoos in weaving. An expert *rafugar* can extract a thread twenty yards long from a piece of muslin of the same dimensions, and replace it with one of the finest quality. This operation, which is called *choonae*, or picking out a thread, is generally done when a coarse thread is discovered in a web of muslin after bleaching. The *rafugars* are principally employed in repairing cloths that have been injured during bleaching, in removing weavers' knots from threads, joining broken threads, and forming the gold and silver headings on cloths. Most of them are addicted to the use of opium, and generally execute the finest work whilst they are under the influence of this drug. They constitute a distinct class, or Mahomedan guild. The number of their houses, or families, at Dacca is estimated at 150."

"*Zar-do-zi*, or embroidery," we are told by the same valuable authority, "is an art for which Dacca has

long been celebrated. Muslins, net fabrics, and woollen shawls and scarfs, are embroidered with silk, gold and silver thread, and with the wings (*elytra*) of the beetle. The silk which is used is both of the common and floss varieties, and appears to have been formerly an article of export; as the name of 'Dacca silk' is still given to one description of this material used for flat embroidery in England. The gold and silver thread and wire (*badla*) are of different sorts, and bear various names, according to the particular purposes to which they are applied." Of the mode of making this "badla" we have given a description in our notice of Plate XII.

In the process of embroidery, "the cloth is stretched out in a horizontal bamboo-frame of rude construction, raised about two feet from the ground; and the figures intended to be worked or embroidered are drawn upon it by designers, who are generally Hindoo painters (*nuquash*). On woollen cloths the outlines are traced with chalk, and on muslin with pencil, and the body of the design is copied from coloured drawings. The embroiderers, seated upon the floor around the frame, ply the needle, which, it may be remarked, they do not draw towards, but, on the contrary, push from them, as is the case with all native sewers in India. In place of scissors, they commonly use a piece of glass or china ware to cut the threads. Like the darners, the embroiderers constitute a distinct society, or Mahomedan guild of artizans."

In our notice of Plate XXXVI., we offered some remarks on combinations of colour as applied to the decoration of plane surfaces. Those remarks were based in a great measure on the important conclusions enunciated by Mr. Owen Jones, in his valuable paper read before the Royal Institute of British Architects (15th December, 1850), on the subject of the decorations proposed for the Exhibition Building in Hyde Park. In briefly pursuing the subject, we shall again avail ourselves of that gentleman's most able guidance.

The combinations of colour generally prevalent in the Indian embroideries of the present day are peculiarly interesting, as preserving traditionally those simple arrangements by which the happiest effects of Mahomedan decoration were attained in those localities where the cultivation of the arts was carried to its highest pitch by the Moors. In the simple contrasts of the primary colours, occasionally mixed with the secondaries, the modern practice of India recalls, in many respects, the treatment of the architecture of the ancients. Mr. Owen Jones remarks that, "in the early periods, the prevailing colours used in decoration were the primaries, blue, red, and yellow; the secondaries appearing very sparingly. We find this to be the case equally in the remains of Nineveh, Central America, Egypt, and Greece, and throughout the vestiges of Eastern civilisation generally. We find also everywhere that, as time wore on, the secondary colours invaded the dominion of the primaries, and blue and red were supplanted by green and purple. In Egypt, in the temples built by the Pharaohs, blue, red, and yellow mainly prevail; whilst in those built by the Ptolemies green and purple take their place. In those of the Roman period the colours are still further degraded to a dull and incongruous muddiness. In the Greek temples, as far as we can gather from the few remains of colour, the same law prevails; whilst in Pompeii we find the secondaries and tertiaries to be the ruling harmonies. In the Alhambra, the blue and red of the Moors were painted over with green and purple by Charles V. and his successors; and with the worst effect. In modern Cairo, and in the East generally, we have green constantly appearing side by side with red, where blue would have been used in earlier times."

That tranquil spirit of content which leads the Indian races to refine upon what exists, rather than to change its nature, has induced a retention of the primitive scales of contrast, rather than a tendency to a degradation of tint, by the addition of lowered and broken hues. Thus it is that they appear to have avoided falling into that state of transition of taste which Mr. Owen Jones pictures as the cause of the degradation he has described. "It would seem," he observes, "either that the human mind, ever seeking for change, became weary of the simple harmonies which the primaries afforded, and sought more complicated effects from the secondaries and tertiaries; or, that this change arose from the decline of art and the incapacity of artists to deal with the primary colours in their pure state, which caused them to take refuge in the hues of the secondaries and tertiaries, in which error in the balance of colour was less fatal; although, to produce perfect harmony with the secondaries and tertiaries is, no doubt, much more difficult."

We cannot but feel, therefore, that a study of the systems of colouring now prevalent among the Mahomedan embroiderers of India, could not fail to throw considerable light upon the practice of the Moors generally, in the highest periods of their greatness; and that from the vivid colouring of the East we may learn to re-illuminate the fading beauties of the Alhambra, and the other monuments of the Western Mahomedan Empire.



W. H. STONE DEL.

W. H. STONE SCULPT.

PLATE 11

THE HUNTER FIGHTING WITH THE PANTHER A STATUE BY BERTHEL TORVALDSEN OF COPENHAGEN

W. H. STONE DEL. W. H. STONE SCULPT. THE HUNTER FIGHTING WITH THE PANTHER A STATUE BY BERTHEL TORVALDSEN OF COPENHAGEN

PLATE LVII.

THE HUNTER AND PANTHER,

A GROUP IN MARBLE, BY JERICHAU OF COPENHAGEN.

ONE amongst the many remarkable features of the Great Exhibition was the opportunity it afforded to the English public of becoming acquainted with the excellence of the works of sculpture produced by the most distinguished foreign artists. The now familiar names of Kiss, Rietschel, Magni, Marochetti, Strazza, Jerichau, De Bay, and many others, were, for the most part, utterly unknown to the general public in this country until the great experiment of an international Exhibition brought some of their choicest productions to our shores. In former articles we have illustrated several of these admirable works, and have now the satisfaction of presenting to our readers a composition which we have no doubt is fresh in the memories of all.

In the excellent series of notices on the Great Exhibition which appeared last year in the columns of the "Morning Chronicle," not the least interesting were those devoted to the subject of the Fine Arts. The writer of those articles has carefully and impartially reviewed the works of sculpture displayed both by British and foreign artists, and thus adverts to M. Jerichau of Copenhagen, and especially to the group we now engrave:—"While we recognise more particularly in the drawings of this artist much of the vigour and imagination of his great master Thorwaldsen, we perceive in his finished works a too sedulous imitation of the antique, which occasionally degenerates into mannerism: but for this fault, his works would be among the best in the Exhibition. His 'Adam and Eve' is too direct a reproduction of classic models. The 'Hunter and Panther' is a magnificent composition. A young and graceful youth, active as a fawn and vigorous as a gladiator, holds in one arm a panther's cub, whilst the mother, enraged at the abstraction of her offspring, dashes savagely upon her foe. With a determination soaring above the pain inflicted by the claws of the animal, the hunter raises his arm to strike a death-blow to his ferocious assailant. The moment has been chosen when the victory is fairly balanced, and the instant of rigidity in every muscle, both of man and beast, prior to the renewal of the mortal strife, has been admirably seized. Like Gibson's 'Hunter,' this group forcibly illustrates the facility with which the true artist may select the appropriate moment when intensity of rapid action is implied rather than absolutely represented."

By the courtesy of Regner Westenholz, Esq., the Danish Commissioner, we have been enabled to procure the following particulars of M. Jerichau's interesting career. He was born in 1816 at Assens, a small town in the Island of Funen, in Denmark. His father, whose trade and small fortune had been destroyed by the financial crisis of 1814, died a few years after, leaving a widow with twelve children. Our artist having arrived at an age when it became necessary to select his future profession, his mother proposed that he should enter the Church, although we are told that he was not much inclined for serious studies. His artistic genius was displayed almost in infancy, and in his earliest years he often occupied himself in drawing or carving. His inclination for art becoming gradually more developed, his mother resolved to apprentice him to a house-painter; but, disgusted with the ordinary routine of the business, and mortified at the sacrifice of time, which he wished to devote to more elevated studies, Jerichau deserted his master before the completion of his apprenticeship, and repairing to Copenhagen, became a student in the Royal Academy of Fine Arts in that city. Supported by the small savings of his widowed parent, he applied himself with zeal and assiduity

to his studies, and soon made rapid progress, gaining several prizes and acquiring the esteem of his fellow-students, who consulted him in their works. Being, however, unsuccessful in one endeavour to obtain a prize, and distressed with the fear of becoming a burden to his mother, he resolved to go to Rome, in the hope of improving his position. A Danish frigate being ready to sail for Leghorn, to convey Thorwaldsen back from Italy to his native land, Jerichau obtained permission from the Government to embark in it, and arrived in Rome with only sixteen ducats in his possession. An artist to whom he had been introduced undertook to present him to his great countryman Thorwaldsen, who received him with a characteristic kindness which at once inspired him with a favourable omen of his future success. He continued to work and study diligently; but, in spite of strict economy, his small means soon became exhausted. The benevolent Thorwaldsen had quitted Rome; and, disappointed in the aid he had expected from Denmark, he even, in his extreme distress, contemplated suicide. Fortunately, his immediate wants were relieved by two young German artists, and he was again enabled to prosecute his labours. The Academy at Copenhagen having received some of his compositions, recommended him to the royal bounty, and the Queen of Denmark commissioned him to execute a frieze representing the marriage of Alexander and Roxana. This, which was exhibited at Rome and much admired, led to a commission for a "Penelope" from Mr. Abendroth, of Hamburg. A colossal group of "Hercules and Hebe" was his next important composition, and this he is now executing in marble for the Royal Palace at Copenhagen. Much as the last-mentioned group was admired, the artist did not escape criticism, being in fact charged with a direct plagiarism of the celebrated torso; an accusation which he repelled by exhibiting his group side by side with a cast of the antique model. However triumphant the result, Jerichau for a time abandoned subjects of mythology and ancient history; and his most successful romantic composition has been the "Hunter and Panther," now engraved; of which the artist has executed duplicate copies in marble for Prince Gallatin of St. Petersburg, and Baron Hambro of London.

In 1846 he married Elizabeth Baumann, whose paintings have acquired much celebrity, and one of whose works is in the possession of the Marquess of Lansdowne. In 1849 he returned to Denmark, after an absence of many years, and was immediately appointed Professor of Sculpture in the Royal Academy. Besides the works we have already mentioned, and the group in the Great Exhibition of "Adam and Eve weeping over the fall of Man," Jerichau has executed a colossal statue of Christ, for the Princess Albert of Prussia; "The Angel of the Resurrection," for Ritzenberg, and afterwards for the King of Denmark; and a sepulchral monument to Mademoiselle Almee de Göethe.



DESIGNED BY

M. HALL, GREAT BRITAIN

ENGRAVED BY

THE RENAISSANCE VASE AND DISH IN RELIEF, BY MINTON OF STONE UPON-TRENT

LONDON: 44, 45, & 46, BOND STREET, IN THE CITY OF LONDON, BY THE MINTON MANUFACTURE, TO THE QUEEN

VASE AND DISH IN PARIAN,

BY MINTON OF STOKE-UPON-TRENT.

FEW among the many novelties in art-manufacture introduced within the last ten years have been more pleasing or interesting than the ceramic material known under the various names of parian, statuary porcelain, and carrara, each of which is essentially the same.

Since the priority of introduction of this material has been a matter of debate between those connected with the establishments of Messrs. Minton and Co. and Mr. Alderman Copeland, we can scarcely be expected to decide "where doctors disagree;" but we may at least recognise that, at the present time, both the above-named gentlemen are entitled to the highest praise for the energy and success with which they have employed their respective materials. Mr. Minton has brought what he terms "parian" to an exquisite consistency; and has succeeded, by means of it, in producing a remarkable variety of useful and ornamental objects.

The white biscuit figures of Meissen, Sèvres, Berlin, and Derby, have long been known and admired. The material in which they are executed is, indeed, peculiarly well adapted to the reproduction of cabinet sculpture. Biscuit may be defined as hard porcelain, once fired, and unglazed. As at present employed by Mr. Minton, parian is a highly-vitrified, hard, bisque porcelain; much more so, indeed, than either the stone or old jasper ware of Wedgwood, the old stone ware made in the Potteries thirty years ago, or the hard bisque porcelain of Sèvres, Meissen, or Berlin. It is superior to the bisque china formerly used for ornamental purposes and statuettes, inasmuch as the latter had a dry, chalky, and occasionally bluish, appearance, from which the new material is exempt.

The mode of producing figures and other objects in parian is one of peculiar interest, and of extreme delicacy. Unlike the ordinary objects of pottery and porcelain—which are formed entire by the wheel, or by the hand of the modeller, and afterwards fired—articles in this material are made from what is termed "slip," being the fluid mixture of clay and flint, reduced to the consistence of cream; that degree of fluidity being necessary to ensure the perfect mixture which is essential for the subsequent mutual chemical action in the fire. The complete object is moulded in several parts, which, when united and dried, undergo successive firings; by the operation of which, and in the process of drying, they shrink to three-fourths of their original size. The judgment necessary in the first instance to anticipate this excessive shrinking, and the extreme care required in fitting the various parts together, render the manufacture one of great difficulty; and but for the ability displayed by our skilful and tasteful manufacturers, the material could never have been brought into general use. The early experiments were not only discouraging, but would have been ruinous to any producer of limited means.

With this general intimation of the difficulties attending the production of works in parian, we proceed to abridge the following minute description of the process from Mr. Robert Hunt's valuable "Hand-book to the Great Exhibition." "The material is used in a liquid state, technically termed 'slip.' It is poured into the moulds forming the figure or group, which, being made of plaster, rapidly absorb a portion of the moisture, and the coating immediately next the mould soon becomes of a sufficient thickness for the cast, when the superfluous slip is thrown back. The cast remains in the moulds for some time at a high

VASE AND DISH IN PARIAN.

temperature, by which, through the evaporation which takes place, it is brought to a state of clay, and sufficiently firm to bear its own weight when relieved from the moulds, which are then opened, and the different portions of the subject taken out. Each figure requires many moulds; the head, arms and hands, legs, body, parts of the drapery, and other details of the subject, are generally moulded separately. These parts being removed from the mould have then to be repaired, the seams caused by the junctions of the mould cleared off, and the whole put together. This is a process requiring the greatest nicety and judgment, particularly in nude figures, in which the junction of the parts, generally presenting a level circular surface, requires the decision of an educated eye to fix with accuracy. The parts are attached together by a slip, similar to that used for casting; the surfaces to be joined together being either dipped into it, or the slip applied with a pencil; and according to the discretion with which this is executed, and the neatness with which the sections of the moulds are made to fit, will be the perfection of the work. The slip in this case is merely required to soften the surface of the clay of the members which have to be united, just sufficiently to cause adhesion. All that is used beyond that requirement is not only superfluous, but actually detrimental. The figure or group being thus put together remains two or three days, when, being sufficiently dry, it is supported by props made of the same material, placed in such positions as to bear a portion of the weight, and prevent any undue pressure that might cause the figure to sink or yield in the firing. Each end of the prop is embedded in a coating of ground-flint, to prevent adhesion, and is thus easily removed. The figure is then placed in the oven, and submitted to a heat of about 60° of Wedgwood's pyrometer. This operation, which is gradually effected, occupies from sixty to seventy hours. The fires are then withdrawn, and the oven allowed to cool; and, when sufficiently so, the figures are drawn out, and the seams rubbed down: they are again placed in "saggers" and embedded in sand, and then refired at a still higher temperature than they were previously submitted to. The bedding of sand is preferred in this part of the process to props, as it more equally and effectually supports the figure. It could not be used in the first instance, when the figure is in the clay, as by resisting the contraction it would cause it to be shattered to pieces. It is sometimes necessary to fire casts three times, a peculiar degree of heat being required to produce the extreme beauty of surface which the finest specimens present. The total contraction of the figures, from the mould to the finished state, is one-fourth; the contraction of the slip with which the mould is first charged, to the state in which it leaves the mould, is one-sixteenth,—again it contracts another sixteenth in the process of drying for the oven, and one-eighth in the process of vitrification; so that a model two feet high will produce a fired cast of eighteen inches only."

Small statuettes were among the first objects executed in statuary porcelain and parian, and the number and variety of them in the Great Exhibition sufficiently evinced their popularity. As a means of diffusing a taste for the sculptor's art, by multiplying his productions, this material is invaluable. The works of Bell, Foley, Marshall, Gibson, Marochetti, and many others, have already been extensively reproduced by Messrs. Minton and Mr. Alderman Copeland. The Art-Union of London—a society which has zealously laboured, in spite of many difficulties, to promote the advancement of art—encouraged at an early period this beautiful manufacture; and Mr. Gibson's warm approval of it, and his ready assent to the reproduction of his own compositions, materially aided its progress. The "Narcissus" of Gibson, and the "Shepherd Boy" of the late J. R. Wyatt (from the marble statue in the possession of the Duke of Sutherland), were amongst the first figures produced in this material.

The perfection attained at the present time in the manufacture is strikingly displayed by the vase and dish, in the style of Cellini, which we now engrave. These were the production of a French modeller employed in Mr. Minton's establishment. In style of design and composition these objects offer a happy departure from the characteristics of French Renaissance, which are usually somewhat too grotesque. They may be regarded as exhibiting a compromise between the style of that country and that of the same period in Italy. The proportion of the several parts is very agreeably balanced, and the modelling executed with great nicety. In one important point, the neglect of which frequently produces unpleasing results, the vase and dish we engrave suggest how essential it is to the perfection of such objects that their various parts and ornaments should be in agreeable proportion one to another, that foliated forms should never overpower structural lines and mouldings, and that the mouldings themselves should not be ponderous, while the flowers are minute in size and petty in relief.



THE PIANO AND THE TABLE
DESIGNED BY J. H. COOPER AND W. H. COOPER
FOR THE PIANO AND THE TABLE

PLATE LIX.

PIANOFORTES,

BY COLLARD AND COLLARD OF LONDON.

IN succeeding to the celebrated firm of Clementi and Co., Messrs. Collard pledged themselves to so high a class of production, that if their contributions to the Great Exhibition had been of any but first-rate quality they must infallibly have risked the loss of that distinguished reputation which had been originally obtained by the firm of Longman and Broderip,—the predecessors of Clementi; through whose mechanical talent some of the most important improvements in the construction of pianofortes had been obtained for this country. Of the instruments contributed by the Messrs. Collard to the Great Exhibition it has been remarked, that the same qualities of excellence characterised their grandest and most expensive pianofortes and their most unpretending and, consequently, least expensive instruments.

In the present article we propose to give some notices of the early history of the introduction of the pianoforte, and its origin in more imperfect and older musical instruments, reserving for a future article (in illustration of Messrs. Broadwood's admirable productions) some observations as to the present condition of the manufacture.

From the earliest periods in which stringed instruments have been at all used, only three modes of eliciting musical sounds from them have been practised. The first by friction, as in the violin; the second, by the use of the finger, of a pointed quill, or a hook, which, drawing the string aside, produced the vibration and the required sound by releasing it; and the third, by the employment of a plectrum or other instrument, producing the vibration by a blow given to the cord. It is by a recognition of the essential difference between the two latter of these principles,—those, namely, of *twitching* and of *percussion*, that we are enabled to perceive the distinction between the old virginals, dulcimers, spinets, and harpsichords, and the modern pianoforte. That the production of musical tones by percussion applied to strings, and conveyed and regulated by means of corresponding keys, was not unknown in the Middle Ages, is shown by a manuscript of the thirteenth century preserved in the Library of Ghent in Belgium, and by another of the fourteenth century in the National Library at Paris. According to an interesting notice of the subject by M. Fétis, père, principal of the Conservatoire at Brussels,* these manuscripts contain illuminations showing two rude instruments of this kind, in which may be recognised the strings placed vertically and acted upon by simple arrangements of hammers, so combined as to be set in motion by the depression of the keys.

When we endeavour to discriminate between the various analogous instruments which preceded and doubtless gave birth to the modern pianoforte, we find some little obscurity as to its immediate origin. Mr. Dodd, in his work on "British Manufactures," gives some interesting information on the subject. He remarks, that "the ancient psaltery (nearly the same instrument as the modern dulcimer occasionally seen in our streets) was probably the original whence all others have emanated; and, according to Mr. Hogarth,† it consisted of a square box of small depth, over which was placed a sounding-board of fir, and on this sounding-board were stretched a set of strings of steel and brass, tuned to the notes of the scale. They were struck or played upon by two little rods held in the hand of the player. A great change was effected when the little rods were abandoned, and mechanism introduced whereby each string was provided with a lever which struck it. The lever constitutes the key of such instruments as these, and, in the form of an instrument called the

* In the "Revue et Gazette Musicale de Paris," 31st August, 1851.

† Hogarth's "History of Music."

PIANOFORTES.

clavicord, was provided at the hinder end with a little brass wedge, that struck the string when the front end of the key was struck down. To improve the tone elicited from the string, the brass wedge was superseded by a quill, and the instrument then acquired the names of the virginal and the spinet. As a still further improvement, it was proposed to have two strings to every note, so as to increase the volume of sound. This involved a considerable increase in the complexity of the mechanism, and the improved instrument, under the name of the harpsichord, was in high repute during the greater part of the last century. At length occurred the happy thought of dispensing with the quills, and using little wooden hammers covered with leather, as a means of eliciting the tones of the strings; a modification which gave rise to the modern pianoforte, so named from the power of the instrument in producing *piano* and *forte*, or soft and loud effects."

There appears to be some uncertainty as to the individual by whom the scientific application of the hammer to these instruments was made. Authorities have disagreed as to the different amount of merit to be assigned to Marius of France, Cristofali of Florence, Padre Wood of Rome, or the celebrated organist and theorist, Schroeter of Germany; all of whom appear, at the commencement of the last century, to have proposed the adoption of a system of hammers, either suspended over, or held beneath, the strings. We are told, however, by M. Fétis, that all their inventions were entirely forgotten when Silbermann first executed, in Germany, about a century ago, the small pianos which subsequently served as models for all instruments of the kind.

Mr. Pole, in his admirable comments on the "Musical Instruments of the Great Exhibition," in Newton's "Patent Journal," states that "the first authentic notice of the instrument which he has been able to discover is in connexion with the visit of the celebrated musician, John Sebastian Bach, to Frederick the Great, king of Prussia, in 1747, three years before that illustrious composer's death. The king had been so much pleased with certain '*forte-pianos*,' manufactured by Silbermann of Freyburg, that he bought them all up, to the number of fifteen, and placed them in different rooms in the palace. When Bach arrived, the king gave up a concert about to take place, and spent the evening in hearing the great man play on these '*forte-pianos*;' and it was on this occasion that his majesty gave Bach the subject of the well-known '*Musikalisches Opfer*.' It is said that the instruments are,—or were, a short time ago—still existing on the premises; but it is probable they did not subsequently answer the king's expectations, for it is on record that a harpsichord of the best kind was made to his express order eighteen years afterwards, namely, in 1765, by Tschudi, the predecessor of the present firm of Broadwood and Sons, and at that time one of the principal harpsichord makers in London."*

About the year 1766, a German named Backers undertook to apply the pianoforte mechanism to the harpsichord. In this work he was assisted by John Broadwood and by Stodart, at that time workmen in the employ of Tschudi. After many experiments, the grand-pianoforte mechanism was contrived by these three individuals, and was in all essential particulars the same as that still used by Messrs. Stodart and Messrs. Broadwood. It is remarkable for its simplicity, efficiency, and durability, and may emphatically be termed "the direct action." It was probably on an instrument made by Backers that Dibdin played in Covent Garden Theatre in 1767, as announced in an old play-bill in the possession of Messrs. Broadwood.† Mr. Pole refers to a grand pianoforte, still in existence, the name-board of which bears the inscription, "Americus Backers, factor et inventor, Jermyn Street, London, 1776." One of the most important improvements in mechanical arrangement was the introduction of the hopper, a small but ingenious contrivance, which intervenes between the lever, or key, and the hammer, and tends to regulate the action of the latter and prevent its rebound. This was the invention of Messrs. Longman and Broderip, to whom we have referred at the commencement of this notice.

Among the earliest manufacturers who devoted themselves to the improvement of the pianoforte were Tschudi, Stodart, Kirkman, Zumpe, Broadwood, and others. As Mr. Pole remarks,—“The superiority of the new instrument soon became so apparent that it gradually superseded the older and more imperfect one,—the harpsichord, which, within the short space of ten or fifteen years after the introduction of the pianoforte, entirely ceased to be made. A suitable style of music and school of players were not long wanting. Muzio Clementi founded both. He played in public on the grand pianoforte at an early period of its history, and from that date its progress in public favour was rapid. Clementi's successors have worthily followed in his steps. Finding new wants arise from time to time, they have demanded new improvements to supply them, and thus the player and the manufacturer vied with each other in the general advance.”

* "An excellent portrait, by one of Hogarth's pupils, now on the premises in Great Pulteney Street, represents Tschudi in the act of tuning the royal harpsichord. The instrument is still in the palace of Potsdam."

† This play-bill has been reprinted at length in Mr. Pole's notice of the subject. The passage alluded to is as follows:—"At the end of Act I., Miss BRICKLER will sing a favourite song from Judith, accompanied by MR. DIBDIN on a new instrument, called PIANO-FORTE."



“THE COVENTRY RIBBON,” AND RIBBONS FROM ST. ETIENNE.

IN Professor Beckmann's "History of Inventions,"—a work which after the lapse of thirty years fully maintains its value as a book of reference,—it is observed, that there is no certain information of the first invention of the ribbon-loom. It has been attributed to the Swiss, but the first positive account mentions it as having been invented at Leyden about the year 1621. There is, however, in the works of the Abbot Lancellotti, published in 1629, a circumstantial narrative of a ribbon-loom which was invented at Dantzic about fifty years before, and which, when set in motion, made from four to six pieces of itself (*'da se Stesso'*); but the magistrates of the town, fearing lest by this invention many workmen might be deprived of employment, interdicted its use, and it further appears, that, not content with this prohibition, they even caused the inventor to be privately strangled. The same author informs us, that "the States-General of Holland, repeatedly, circumscribed the use of the ribbon-loom, although they did not altogether abolish it. In the Spanish Netherlands, and throughout the greater part of Germany, it was strictly prohibited, and the Council of Hamburg ordered a loom to be publicly burned."

After adverting to the education by experience which led to the abolition of these restrictions, Professor Beckmann states, that "the ribbon-loom was brought to England from Holland in 1676, and was then called the Dutch loom-engine. Its introduction occasioned some disturbances among the ribbon weavers in London, but its evident utility ensured its adoption."

The ribbon-trade of Coventry may be almost regarded as the growth of the last thirty years, so immense has been its progress in that period. It was originally established in the town about 150 years ago,* and made great progress at an early period afterwards; but the quality of the Coventry silks became greatly deteriorated so soon as those of France and Italy were prohibited. The effect of that measure was to induce the manufactures of the town to recede instead of to advance in excellence.

The system of prohibition was brought to a close in 1824, and the reduced price of silk in consequence greatly stimulated the Coventry trade. Considerable capital was embarked in the fancy branches of the manufacture, and the trade has gone on increasing largely to the present time. The population of the town at the last census amounted to 36,800, a very large portion of whom are engaged in the ribbon manufacture. In 1823 there were only five Jacquard looms in the town, but in 1832 their number had increased to 600. In 1838 the increase was enormous, there being at that time 13,239 looms, of which about 2300 were Jacquard. There were four dyeing-houses and four throwing-mills in the district, besides several small establishments, in which raw silk was thrown by hand machinery. After some unsuccessful attempts, a steam-factory was profitably established about the year 1840. It was speedily followed by others, and there are now thirty steam-power-loom factories in Coventry, working 1000 looms and employing about 3000 hands when in full work. These looms can turn at least 7000 pieces in a week, which is at the rate of 364,000 a-year. The total number of manufacturers engaged in the ribbon trade, including "first-hand journey-hands," who own the looms on which they work and carry on their trade on their own account, probably exceeds 180.

Although fully competent to the production of ribbons of equal excellence with those of France, the

* We have adverted, in a former article, to the establishment of the silk trade at Spitalfields by the French Protestants, after the revocation of the Edict of Nantes. Mr. Bird, the grandfather of Mr. Wilberforce Bird, M.P. for Coventry, was assisted in his efforts to establish the ribbon trade there by some of these emigrants, and many French terms are still made use of in the manufacture.

“THE COVENTRY RIBBON,” AND RIBBONS FROM ST. ETIENNE.

Coventry manufacturers have been chiefly satisfied with the trade in cheap ribbons among the middle and lower classes; and in the attainment of cheapness combined with excellence they have surpassed all foreign competitors. Heretofore they have paid little attention to originality of design, and a tendency to copy or recombine French patterns still prevails; but the establishment of the Government School of Design in 1843 has already done much to remove this stigma from the town, and the exquisite ribbon now engraved, which is entirely of local origin, both in design and execution, may be regarded as a happy omen for the future.

This splendid article, which has been worthily denominated *the* “Coventry Ribbon,” was produced as a specimen, of the capabilities of the local trade, rather than of its general productions. Its preparation was managed by a committee of the principal manufacturers, the most active member of the committee being Mr. Charles Bray, whose establishment is one of the most important in Coventry. He suggested, as the idea of the pattern, a wreath of flowers in a handful of natural grasses; and that idea was tastefully carried out by the designer, Mr. T. Clark, a young man under twenty-one years of age, a pupil in the Government School of Design in the town. The draughtsman, or “putter on,” was Mr. Robert Barton, who, in this essential department, manifested great ability. The number of cards employed was 10,000, and cost, with the drafting, 150*l.* The number of shoots, or weft threads, to the inch was 500, and the number of cords 2400. Nine shuttles were employed in weaving this admirable specimen of the art, and not more than two and a half yards could be woven in a week, in a single hand, or one-shuttle loom. All that could be made in six months was sold to Messrs. Morrison, Dillon, and Co., of Fore Street, London, for 30*s.* a yard,—more than double the price ever realised by any ribbon before in this country.

We have added to our illustration of the Coventry Ribbon two agreeable specimens of those produced in France, at that great *dépôt* of the manufacture, St. Etienne. It was a lively subject of comment, on the part of many of the French visitors to London during the summer of 1851, that of all their staple productions the one least favourably represented in the Great Exhibition appeared to be that of the ribbon trade of St. Etienne. M. Blanqui, in his interesting “*Lettres sur l'Exposition Universelle de Londres*,” has addressed a serious remonstrance to the manufacturers of that district on their want of activity on this important occasion, reproaching them with allowing the merchants of Basle and of Zurich, as well as those of England, to have received numerous orders which, with proper exertions, they might themselves have obtained.

The head-quarters of the French ribbon manufacture are in the towns of St. Etienne and St. Chamond. In those districts, its greatest developement in the early history of the silk trade has been dated from the year 1600 to 1680, at which latter period the number of looms employed amounted to no less than 10,000. We learn from the Report on the French Exposition of 1844, that “the Revocation of the Edict of Nantes, in banishing the industrial genius of France, materially affected the ribbon trade in that country, which from that period had to sustain a vigorous competition with the fabrics of Basle. From 1700 to 1760 it struggled on against difficulties, and it was only towards the latter year that the manufacture received a new developement by the exertions of the well-known house of Dugas, frères, of St. Chamond, who imported from Basle, and distributed throughout the various manufactories, mechanical looms, called looms *à la Zurichoise*, and now well known as looms *à la Barre*.”

In the year 1788, when the long-continued patronage of the court and nobility had raised the manufacture of ribbons to its highest pitch of perfection, the number of looms employed in every department of the trade amounted to 15,000. In the year 1800, in consequence of the political troubles and the war, that number had declined to 13,800; and it does not appear that it ever, under the Empire, exceeded 13,850. At the present time the number may, without exaggeration, be estimated at least at 20,000.

It is well known that much of the celebrity which the ribbons of St. Etienne have obtained throughout Europe is due to the artistic education which the French manufacturers have always been so careful to give to the designers whose talents have worthily maintained the reputation of their productions.



STANETTI DEL.

IN MARM. "SANTA MARIA"

IN M. SINTROVICH

THE FIRST EPIPHANY - STANETTI

MADE IN ITALY BY GIOVANNI STANETTI, 1840. THE SCULPTURE IS NOW IN THE COLLECTION OF THE MUSEUM OF THE UNIVERSITY OF TORINO.

PLATE LXI.

THE FIRST CRADLE,

IN MARBLE, BY DE BAY OF PARIS.

THE peculiar organisation which usually accompanies the artistic temperament is one of excessive susceptibility. That very aptitude to receive impressions from external nature, which the heaven-born artist invariably possesses, too frequently renders him a prey to intense nervous sensibility, and makes his life one continued excitement,—fluctuating between excessive gaiety and enjoyment on the one hand,—and deep despondency or constant irritability on the other. In spite of his proverbial defects of character, many of which arise from the peculiar organisation to which we have referred, the artist has rarely failed to interest and attract, scarcely less in his person than in his works. Himself expansive and inclined to love, he rarely fails to secure the affection of his friends; and in all the history of art, we find constantly that the greatest masters have been either surrounded by troops of friends, if their inclination led them into society, or worshipped by some tender soul in private, if their habits were of a more domestic character. Artistic friendships partake more of the nature of love than is common in the relations of affection which usually obtain between less keenly-strung mortals; and hence the feeling of clique and partisauship which is proverbial among the race. Strong when excited, but almost a child in matters irrespective of his feelings, the artist stands in peculiar need of a friend to sustain his wavering spirits when oppressed,—to regulate his enthusiasm when overjoyed. Such a friend most great masters have had, and most living artists do possess; and such is M. de Serignon, the celebrated portrait-painter of Paris, to Auguste de Bay, the sculptor of the exquisite group we engrave.

The ties which unite those kindred souls are of the most intimate description, and we consider ourselves eminently fortunate in being able to present our readers with a memoir of the one written by the other. To that short notice we shall presume to add neither note nor comment, but shall only premise our translation by observing, that when troubles overtook De Bay, in the course of those revolutions which have brought such misery on so many of the finest artists of France, de Serignon assisted his friend in every way, taking upon himself to guarantee the expenses of the execution of the group we engrave in marble, under the peculiar circumstances about to be related, and before the model had been seen by any other than himself. Of the original of this group he is now the worthy possessor.

M. de Serignon thus sketches the biography of his friend. “Auguste de Bay,” says he, “possesses one of those rare organisations, the peculiarities of which assert themselves from the tenderest childhood. His artistic instinct and studious character found in his own family the most favourable elements of education. As the son of M. Jean Baptiste de Bay, a sculptor of great merit, his precocious genius was nurtured, as it were, from the very cradle, by the most careful instructions of a description admirably fitted to secure him a brilliant career. Among the celebrated artists who belonged to the friendly circle of the elder M. de Bay, was the illustrious Baron Gros, who, being struck with the talents of the young Auguste, desired to become his master. Under the direction of this great painter our student, in a few years, gained every academic distinction. At the age of eighteen he terminated his studies, and crowned his scholastic success by carrying off the grand prize of painting, which enabled him to visit Rome, where he remained seven years.

“But the question naturally arises, How is it that we have occasion to speak of the first prize for painting,

THE FIRST CRADLE.

when we are treating of the author of this admirable statue, 'The First Cradle?' It is the fact, however, that historical painting was for a long time the only subject of Auguste de Bay's labours; and if at a later period the manipulation of the chisel became suddenly familiar to him, it was because the severity of his studies from nature had predisposed, and in some sort initiated, him into the secrets of the art of Phidias, and that confinement to one art alone offered too narrow a field for the fertility of his genius. In giving himself up to his vocation, he could not be satisfied with animating his canvass; he required also to give life to the stubborn marble. In the same manner as the Muses are sisters, so do the Fine Arts hold each other by the hand; nor is this the first time they have been seen associated in the same high degree in the person of one artist. Of this the history of art affords some rare examples. The one under our notice carries our thoughts back to the divine Michael Angelo, and can we help asking if Auguste de Bay has not caught from his example an extra ray of genius?

"At the period of his return from Italy, our artist was still only a painter. He brought with him a picture, which hangs, with credit to its painter, in the National Gallery of the palace of the Luxembourg at Paris. For some time he continued to practise his art with success, and several of his works in the museum of Versailles display the power of his talents.

"Living with his father, whose skilful chisel was continually producing some new *chef-d'œuvre*, and following with a lively interest the works of his elder brother, a sculptor also of considerable merit, Auguste de Bay perceived the germ of his future talent developing itself within him. While enjoying the retired and tranquil life to which he was deeply attached, he had numerous opportunities of witnessing the animation of marble and of bronze beneath the sculptor's hand; and, stirred by such examples, he at length felt within himself, '*anche io son' scultore.*'

"Nor was he deceived in this belief. Some leisure moments having enabled him to put into form a model of the subject he had imagined, the clay, obedient to his inspiration, soon revealed in the most beautiful shape the idea of the artist.

"Thus was originated the charming group to which he has given the name of 'The First Cradle.'

"We see Eve, the mother of the human race, holding to her bosom, and in her arms, with which she forms a cradle for her two children, Cain and Abel sleeping. Her head is bowed over them, and her look of love falls upon them. She seems as though she could already perceive some faint indication of the different feelings which, in despite of sleep, betray themselves in the instinctive movements of her children. In blissful ignorance of the future, she sees no crime,—she perceives no virtue,—she has but one sentiment, the first and most natural feeling of woman, that of maternal affection. Cain sleeps; but in his unquiet slumbers his hand repulses his brother, whom he seems to feel too near to him: this action, and the expression of his features, already reveal the nature of his cruel instinct. His brother Abel reposes in the pure sleep of innocence; he appears an angel in the cradle. Upon the sides of the base the author has engraved, in bas-relief,—the fatal tree of knowledge; the offering of Abel accepted by the Creator, that of Cain refused; and, upon the front, the fratricidal murder. Thus have we a summary of this first terrible page of the history of the human race. No subject could be more fit for sculpture, nor could it have been expressed in a more perfect manner. The whole group bears a touching aspect of grace, melancholy, and mystery.

"The laws of the most rigorous modesty have been observed, and inspire respect. The naked figure has been treated with that severity of style which the representation of the purest beauty emanating from the hands of the Creator required. Auguste de Bay, in triumphing over the first difficulty of the art, that of putting his idea clearly into form in a composition at once happy and essentially appropriate to sculpture, became at once and unquestionably an eminent sculptor. To complete his conquest he had yet to overcome the difficulties incidental to procuring expression in marble,—that hard and unyielding material, which seems to refuse to be animated,—that inert mass, which yields only to the exertions of a patient genius, and denies itself to those trifling and commonplace inspirations which a pure and severe taste have not refined. One of the most perfect blocks of Carrara marble procurable was submitted to his rapid and intelligent chisel, and in the space of less than a year came forth a *chef-d'œuvre* destined henceforth for posterity.

"This group met with unanimous approval at the Exposition of Paris, 1844; a success which received a yet more solemn consecration at the universal Exhibition of London in 1851, where it contributed worthily and with dignity to uphold the glory of French art."



V. D. B. & A. 1861

THE UNIVERSITY OF CHICAGO PRESS

1861

PLATE LXII.

WOOD-CARVING,

BY WALLIS OF LOUTH.

IN examining a beautiful work of modern art, and remembering the earliest attempts to produce a similar object, it is difficult to recognise any connexion between the two. That such connexion exists is, however, most certain; since it is only by the various steps of progression which link the works of one generation to those of its successor, and by the gradual accumulation of improvements thus introduced in a long course of years, that the precise form of the most perfect artistic productions has been determined. We conceive, therefore, that our best illustration of the objects we engrave must frequently consist in an endeavour to trace the successive changes which have taken place in the various arts which they exemplify, and on the traditions of which their specific form and execution is more or less dependent. Thus in the beautiful group of flowers and birds, so admirably carved in lime by Mr. Wallis of Louth, we trace the immediate operation of the talent of Grinling Gibbons. From the works of this latter master, the mind naturally recurs to those earlier examples of graceful execution, of arms, of fruit, of flowers, strapwork, shells, and other objects, which form such important features in buildings of the Elizabethan period; whilst the dependence of these, in point of style, upon the exquisite carvings of the Gothic period, carries us yet further back to the earliest stages of the art.

We propose, therefore, in the present article to give a brief and rapid sketch of the art of wood-carving, as applied to ecclesiastical uses in this country from its earlier days; and in subsequent papers we shall notice other branches of the subject, and probably advert to the peculiarities of contemporary schools in other countries.

The remains of early timber-work in this country are so few, that until we arrive at what in architecture is called the Early English period, we cannot trace with certainty the progress of wood-carving. In a country so rich in timber, however, there can be no doubt that, even in the Anglo-Saxon era, much decoration of this kind was applied to furniture and buildings. From the twelfth to the sixteenth centuries, the churches of England displayed the highest skill and refinement in the ornaments applied to their roofs, screens, rood-lofts, stalls, doors, and other members; and the more these are studied the more we must admire the artistic feeling and manipulative skill of our ancient carvers in wood.

It has been well observed,* that "a timber roof of the fifteenth century, with its massive timbers, elaborately wrought and moulded, its rows of hammer-beams, terminating in beautifully carved figures of angels, its enriched panelling and traceried spandrels, its exquisite bosses, and, above all, its profusely ornamented cornice, is truly as glorious a sight as it is a grand triumph of art." Adverting more particularly to the timber-framed roofs of ancient churches, it may be observed, that the early examples were almost exclusively tie-beam roofs; but, although occasionally retained to a very late period, as a general rule, the tie-beam was early dispensed with, leaving the inner surface of the roof exposed, and thus affording an opportunity for the richest decoration. In the church of Old Shoreham there is a tie-beam having the dog-tooth moulding, the foot of the king-post being formed into the base of a column of the period,—transitional from Norman to Early English. In the decorated period much ornament was introduced, the main timbers springing from a rich

* In Messrs. Brandon's "Analysis of Gothic Architecture."

cornice, or from corbels of varied design. The main surface was formed into panels by moulded ribs, with carved bosses at their intersections; and when the hammer-beam system (peculiarly English in its nature) was adopted, the ends of those beams were formed into figures of angels, the spandrels of the braces being filled with exquisite tracery. The finest church roofs of this era are to be found in Lincolnshire, Norfolk, and Suffolk,—especially in the church of St. Mary, Bury; and those of Woolpit and Grundisburg, Suffolk. The latter* is a *double* hammer-beam roof, all the ends of the beams, and even the king-posts, forming figures of angels; and the effect of this heavenly host, leaning forward from their airy height, is grand and solemn beyond description. “These carvings,” observes Mr. Pugin,† “had a mystical and appropriate meaning. They usually represented angels, archangels, and various orders of the heavenly hierarchy, hovering over the congregated faithful; while the spaces between the rafters were painted azure, and powdered with stars and other celestial emblems,—a beautiful figure of the firmament. Some of these angels held shields charged with the instruments of the Passion, the Holy Name, and other emblems; and others, labels with devout Scriptures.” The churches of Wymondham, Long Melford, St. Peter’s, and All Saints, Norwich; St. Mary’s, Devizes; and many others, present fine examples of this description; the whole of them having been, not only elaborately carved, but richly painted and gilt. As Messrs. Brandon truly observe, “none other than our own oak-bearing land can boast of roofs such as those that abound with us, either in beauty or boldness of execution.”‡

Next in importance to the roofs are the screens of ancient churches. As Mr. Pugin observes,§ every parochial church, small or great, had, in mediæval times, at least a chancel-screen, either of metal, stone, or wood, and often others to the side-chapels and other parts of the structure. Their employment, indeed, may be universally traced from the Saxon times down to late in the sixteenth century;—even subsequently to the Reformation. “There is no country in Christendom,” Mr. Pugin remarks, “where so many screens are still standing as in England.” Our cathedrals abound with examples, both in stone and wood; and the profusion of the carving bestowed upon the wooden screens of our parochial churches strikingly attests the talent of the mediæval artists. Whether a simple screen, or supporting a rood-loft, the chancel-screen was always highly enriched; the lower panels with painted figures of saints, apostles, and martyrs, on gold and diapered grounds, the upper portion perforated in the most exquisite traceried designs, and the cornice covered with beautiful foliage and inscriptions. The “holyrood,” with its attendant “imagines,” was itself the subject of most lavish decoration. Norfolk, Suffolk, and Lincolnshire, possess screens as elaborate as their roofs; and those of Cambridgeshire, Devonshire, Lancashire, and parts of Wales, have almost equal claims to notice.

The stalls of large churches, with their accompanying misereres, supplied a fertile field for carved decoration. The former, surmounted by overhanging canopies and tabernacle work, demonstrate the perfection of the art; whilst in the latter the artist seems to have revelled, free from the trammels of ecclesiastic rule, mingling in the strangest manner the most graceful foliated designs with the most grotesque, and, in some cases, the most profane devices. Human figures of every grade, costume, and occupation, animals and monsters of all kinds, displaying the most vivid and teeming imagination, abound in these curious carvings; and the freedom and boldness of their execution have certainly rarely, if ever, been surpassed.

The doors of churches in the decorated and perpendicular styles were carved in harmony with the architecture of those periods,|| and the ends of the pews, or open seats, were panelled, and elaborately ornamented. The later examples rose with an ogee curve, and terminated in finials, or “poppy-heads,” as infinitely diversified in form, and as admirable in their execution, as were the misereres. “The Church of St. Mary Stratton, Norfolk, alone furnishes us with nearly one hundred distinct patterns; nor is this a solitary case.” The riches of parochial churches, in the possession of decorations in beautifully-carved wood, have been admirably illustrated of late years by the researches and artistic ability of Messrs. T. T. Bury, Orlando Jewitt, P. H. Delamotte, R. W. Billings, and many others

* Illustrated in Messrs. Brandon’s “Analysis,” which contains an able essay, and numerous engravings of ancient wood-work.

† “True Principles of Gothic Architecture.”

‡ Public attention, as to the propriety of reviving such roofs in modern church architecture, was greatly stimulated, if not awakened, by an excellent article upon the subject of open roofs, written by the Rev. T. Mozley, and published in the “British Critic Review.”

§ In his work on Screens.

|| See that of Stoke Church, Suffolk (a fine example), engraved in Brandon’s “Analysis.”



DECORATION OF THE CHAMBER OF THE QUEEN AT VERSAILLES.
DESIGNED BY M. DE LAURENT, ARCHITECT OF THE ROYAL PALACE AT VERSAILLES.

SIDE OF A ROOM,

BY JOHN THOMAS OF LONDON.

ALTHOUGH the apartments of our richest millionaires rarely exhibit a degree of splendour in decoration at all rivalling those of the rich *salons* of Paris, it may be questioned whether, in quiet excellence, many English interiors are not much more agreeable. They are, at least, more consistent with that disinclination to display which forms so essential an ingredient in the national character.

Of late years great progress has been made in this department of art, as compared with the decorations which predominated during the reigns of our last sovereign and his predecessor. In point of expense, however, we much doubt whether even the most elaborate modern enrichments approach to that which was commonly bestowed upon the decoration of the principal apartments of mansions erected in the reigns of the earlier Georges, when joiners' work triumphed in every part, when every moulding, on doors, skirtings, shutters, and dados, was enriched by elaborate carving, and when a profusion of hand-worked stucco decorated the ceilings.

In the application of ornamental modelling to architecture, a great advancement has been made within the last few years, and modern Gothic works especially are greatly indebted to the important labours which have been carried on under the superintendence of such men as Mr. Thomas (the author of the beautiful design we now engrave), Mr. Myers, and some others, who may be said, in fact, to have formed a new school of carvers both in wood and stone.

Mr. Thomas has attained a high degree of distinction as a sculptor, and a large amount of profitable employment, solely by his own persevering and well-directed efforts. From information with which he has kindly favoured us, we are gratified to be able to narrate a few of the incidents of his honourable career.

This artist was born in 1813, at Chalford, in Gloucestershire, and in his twelfth year was apprenticed to a stonecutter at Stroudwater, in the same county. He was soon afterwards left an orphan, and with means inadequate for his subsistence. Even at this early age Mr. Thomas seems to have acquired those habits of industry and perseverance which lead to success, and also, though in a humble degree, much varied artistic knowledge; for, to provide himself with necessary comforts, he laboured assiduously at night in painting sign-boards and engraving brass plates, for a very small remuneration. During the last year of his apprenticeship he walked to Oxford, in the depth of winter, with but a few shillings in his pocket; and from that journey he imbibed a love for the ornamental work of the mediæval sculptors, and a determination to excel in it.

On the completion of his apprenticeship, Mr. Thomas resided for a short time with his brother, who was in practice as an architect at Birmingham. Having executed a large Gothic monument, with some other works of the same class, the ability they displayed attracted the attention of Sir Charles Barry, who was then engaged on King Edward's Grammar School at Birmingham; and who at once employed him to execute the whole of the sculptured decorations with which that edifice abounds. From this time the path of the young artist was freed from difficulties. He executed many works under Mr. Blore at different mansions in Cheshire, and was also employed at the various stations on the North Midland Railway.

The crowning event of his career, however, was his engagement with Sir C. Barry to undertake the whole management of the sculptured decorations of the Palace of Westminster, which arduous task he accordingly commenced on the 9th of November, 1841; and in the prosecution of which the modelling and carving of the whole of the ornaments, as well as the innumerable statues in stone which decorate so profusely that magnificent fabric, have received the constant benefits of his artistic taste, and in many cases of his manipulative ability as well. Notwithstanding the restrictions imposed by the conventionalities essential to the style adopted, these works display a variety and freedom which indicate the fine feeling of Mr. Thomas for the breadth and grandeur of nature. His design and specimen for the wood carving of the Palace of Westminster was highly approved by the Royal Commissioners, and he was one of the nine sculptors to each of whom was entrusted the execution of two statues for the interior of the House of Lords.

It would be difficult to enumerate all the varied works which Mr. Thomas has produced. To a few, however, we are enabled to direct attention. On the occasion of his employment by Mr. Peto, M.P., to rebuild his Hall at Somerleyton, in Suffolk, he not only successfully carried out the building itself, but the sculpture, fountains, chimneypieces, and decorations, and the furniture of the dining-hall. In like manner he is now engaged at Preston Hall, in Kent, the seat of E. L. Betts, Esq., and the admirable taste which characterises his designs for interior decoration require no other testimony than that afforded by the "Side of a Room," which forms the subject of our present illustration.

It is only since 1844, when Mr. Thomas first exhibited at the Royal Academy, that he has turned his attention to ideal sculpture; but he has already executed several beautiful works in marble, including a group of Britannia, Science, and Industry, together with several basso-relievos, in the Great Room at the Euston Station; and basso-relievos of Peace and War, in Buckingham Palace, executed for His Royal Highness Prince Albert. He is now engaged upon two marble statues of "Night" and "Musidora."

We may swell our still imperfect list of his productions by the following successful works:—the colossal Lions on the Britannia Bridge; life-sized figures, in oak, in the new Hall in Lincoln's Inn; statues for the new Law Courts at Bristol; sculpture for the Bank and Exchange Buildings, Glasgow, and the Imperial Fire Office, London; monuments to Dr. Arnold of Rugby, and many others. He has also in progress the sculpture for the new hotel at the Paddington Station of the Great Western Railway; and a colossal sculptural fountain for the Earl of Carlisle. We may conclude our narrative of perseverance and success by stating, in his own words, that Mr. Thomas "has never studied under any master, nor attended any drawing or modelling school." The infinite energy and labour he has been compelled to exert to compensate for these disadvantages of circumstance, should make all whose means enable them to enjoy such assistance deeply conscious of its value,—as assisting them to master, at least the preliminary difficulties, that beset the attempts of every beginner in art.

In carrying into effect his designs for decoration, Mr. Thomas has been materially assisted by the ability of his friend Mr. Moxon; whose talent, not only as a successful imitator of various woods and marbles, but as a skilful and tasteful designer of marqueterie and mosaic-work, must have been at once appreciated by every one who studied those departments of art as represented at the Great Exhibition.



F. SMITH & CO. LTD.

W. GIBBY WYATT & CO. LTD.

F. REDFORD & CO.

PORTIERES OF PRINTED MOHAIR BY J. EES AND CO. OF LONDON

LONDON PRINTED & PUBLISHED BY DAY & SON, LITHOGRAPHERS TO THE QUEEN

PORTIÈRES OF PRINTED MOHAIR,

BY R. LEES AND CO. OF LONDON.

WE have already, in our notices of the shawls of Cashmere, indicated the commercial value and importance of the soft wool of the goat of that portion of the world; and in considering the fabric known as mohair, we have now to describe the wool of another species of goat, which is indigenous to the district of Angora in Asia Minor.

Mohair is literally the *hair* of this animal, though the term is applied to articles manufactured from it.

The most complete account of the nature and habits of the Angora goat, and the manufacture of its fleece, is to be found in a valuable paper written by Captain Conolly, and read before the Asiatic Society in January 1840.* The author observes that "the long-famed goat, peculiar to the province of Angora and certain adjoining districts, is invariably white; and its coat is of one sort, namely, a silky hair, which hangs in long curly locks." He further states that the fleece of this goat is called "Tiftik," which is the Turkish word for goats' hair; in contradistinction to *yun* or *yapak*, which signifies sheep's wool. Unlike that of the Cashmere goat, the whole fleece of the Angora species is available for the manufacture, without any separation of the hair from the down.† That of the female is considered to be the best.

The yarn is spun by the women of Angora, who attach much importance to a habit of moistening each tuft of wool with their saliva, before they draw it from the distaff; asserting that yarn spun during the season in which their principal food consists of the melon, is far superior to that spun at other times. It will be remembered that steeping in rice-water is an important part of the manufacture of Cashmere wool; and besides the moistening process above-described, the yarn of Angora is again well saturated with a glutinous liquor, called *chirish*, which is prepared from a small root; and this operation is equally curious with the former. The large hanks of yarn being extended in a frame, "two men walk up and down the sides of it, holding bowls of *chirish* liquor, made into a thin yellow mucilage. Of this they continually blow out mouthfuls, in alternate showers, all over the yarn—*iplik*,—while others follow them to press the threads together for a moment, and then to change their position relative to each other by means of sliding cross-bars, so that all may be equally moistened."

The women of Angora are so skilful in knitting gloves and socks from the tiftik yarn, as to have excited the astonishment of English manufacturers. Some socks are made so fine as to cost one hundred piastres (about 20s.) the pair.

Captain Conolly informs us that "the cloths woven from tiftik at Angora are of two kinds, *shalli* and *sóf*, or twilled and plain cloth, and the manufacture of these is confined to men. The weaver sits with nearly half of his body in a small pit, at the bottom of which he works two or four treadles with his feet, according as he wishes to make plain or twilled cloth. Part of this loom is fixed to the floor before him, and the rest is suspended nearly over it from the ceiling. He contracts to work a piece of thirty *piks*, or rather

* It is printed in the "Transactions" of the Society, and is also largely quoted in a useful and elaborate work on "The Rise, Progress, and Present State of Colonial Sheep and Wools, embracing Remarks on the use of Alpaca, Angora, and Cashmere Goats' Wool. By Thomas Southey." 8vo. 1852.

† See our notice of Plate XLVIII.

PORTIÈRES OF PRINTED MOHAIR.

more than twenty-one yards, for a sum which varies, according to the texture required, from fifteen up to one hundred piastres; and by working steadily he may finish a piece of this regular measure in six days." The stuffs are died at Angora, either in the yarn or in the piece; in the latter case the colour is less durable. The dyes used are imported from Smyrna and Constantinople, in addition to some local vegetable substances.

Before the Greek revolution there was a prohibition against the export of tiftik from Turkey, except when wrought, or in the form of *iplik*, or yarn. In the days of its greatest prosperity, the town of Angora,—the chief, if not the only town in which weaving is carried on,—contained 1200 looms. There was at that time very little demand for the raw material in Europe, and even in 1820 the hair only produced 10*d.* per lb. in England, where its value was not duly appreciated. It has since, however, gradually risen in estimation and demand, and the ordinary price for many years has been 18*d.* per lb. Permission is now freely given by the Turkish Government to export raw tiftik, and as the European manufacturers readily avail themselves of it, the weaving carried on at Angora has greatly diminished. There are now only about fifty looms in the town, and its exports of stuffs do not exceed 1000 or 1500 pieces annually, instead of 20,000, which were formerly required. But although the city has thus suffered, the province at large has benefitted by the increased demand for the raw material.

The effect of the permission to export the raw material is strikingly shown by the following statistics from the paper by Captain Conolly, and from information kindly furnished us by Messrs. Lees. In 1836 the exports from Constantinople were 538 bales of mohair yarn and 3851 bales of wool; but in 1838 only 21 bales of yarn were exported, while the wool exported had increased to 5528 bales. In 1831 the quantity of mohair, or goats' wool, brought into England was 331,658 lbs. This quantity has since enormously increased, as will be seen by the following figures:—Quantity imported,

| | | | |
|---------------|--------------|---------------|----------------|
| In 1838 . . . | 942,770 lbs. | In 1848 . . . | 1,165,368 lbs. |
| 1844 . . . | 1,290,771 „ | 1850 . . . | 2,800,250 „ |
| 1846 . . . | 1,287,320 „ | 1851 . . . | 2,124,600 „ |

The manufacture of mohair from native yarn, imported principally from Smyrna, has been carried on in England for upwards of a century, chiefly in the production of camlets and other expensive stuffs. "These camlets," observes Mr. M'Culloch,* "are manufactured on a loom with two treadles, as linens are. They are of various colours and sorts. Some are wholly of goats' hair, and in others the warp is of hair and the weft half hair and half silk; whilst camlets are also made of wool, either alone or in conjunction with cotton thread. They are made both plain, striped, watered, and figured." "Moreens," says Mr. Southey,† "are also made from mohair, and woven white, and then dyed any colour required. The characteristic feature that distinguishes this kind of manufacture is the effect produced upon it by the process of watering."

The manufacture was, however, until within a few years past, chiefly confined to an article called mohair plush; used almost exclusively for servants' livery clothing, and as vestings for agricultural labourers, amongst whom its durability and capacity for receiving bright and lasting colours have long rendered it proverbially popular.

A complete revolution in the manufacture has, however, been effected by the spirited exertions of Messrs. Lees and Co., one of whose most recent improvements we now present to our readers. Their efforts have been chiefly directed to the advancement of the process of printing on mohair, an art which they have now brought to the highest pitch of perfection. Finding that this material, to use their own words, "receives, holds, and throws out the colours imparted to it with a beauty and brilliancy greater than any other fabric, and that its cleanliness and durability are very great," they applied it in the year 1836 (under the firm of Gillett and Lees) to the production of Utrecht velvet, which had not before been made in England, but which is now in extensive demand.

They have since applied it to various articles of furniture (such as curtains, portières, cushion coverings, &c.), and have spared no exertions to render their works as excellent in design as in execution. The portières engraved fully prove the success which they have attained. These have been printed by Mr. Charles Swaisland, of Crayford, from the designs of Mr. J. G. Crace, by means of no less than 268 blocks.

* "Dictionary of Commerce."

† "Treatise on Sheep," 8vo. 1810.



MORSE WYATT SCULPTOR

J. A. WINTER, DEL. ET LITH.

FILASTER IN CARTON PIERRE BY CRUCHET OF PARIS

LONDON, PRINTED AND PUBLISHED, JUNE 11, 1852, BY DAVISON, 11, THURGOOD STREET, ST. MARTIN'S LANE.

PLATE LXV.

PILASTER IN CARTON PIERRE,

BY CRUCHÈT OF PARIS.

IN the remarks which accompanied Plate L., we took occasion to trace the progress of cinque-cento art, as illustrated by the ornamental sculpture of Italy.

In examining the productions of the period of the Renaissance in France, their coincidence of style with those of Italy is very striking. The profuse decoration of the celebrated châteaux of the period of Francis the First, doubtless derived much of its character from those Italian artists who led the movement of the revival of taste in France; such as Primaticcio, Rossi, Benvenuto Cellini, Niccolo dell' Abbate, Girolamo della Robbia, and others; but the genius of the French nation manifested itself in a truly independent form in the persons of the eminent artists, Jean Goujon, Pierre Lescot, Philibert de Lorme, and Germain Pilon. The creations of those master-minds have long served as models to French designers; and although their beauties were neglected in the foggy atmosphere of the *rocaille* and *baroque* styles of Louis XIV. and XV., still in later days and during the present century the admiration of the most intelligent connoisseurs has been excited by the happy imitations of Renaissance ornament, which have from time to time proceeded from the *ateliers* of the most tasteful architects and the workshops of the most skilful manufacturers.

This renewed popularity of Renaissance ornament may be regarded as due to two principal causes,—namely, the facility with which the stone of Paris may be carved into arabesques and foliage for exterior purposes, and the low price at which, by the employment of plastic materials, the richness of the old *salons* of Henri II. and Diana of Poitiers may be reproduced in the apartments of the aristocracy and the *bourgeoisie* of Paris. No material has perhaps contributed more essentially to this result, than that in which the object we engrave has been executed, and we now propose to offer a few observations on the history of its manufacture in France, only premising that the firm by which this graceful pilaster has been produced is as well known for the talent of the artists it employs to design and model, as for its excellence in mechanical execution. In 1839 Messrs. Cruchèt obtained a bronze medal, and were highly complimented by the jury who decided on the merit of the productions in the Exposition of that year. In 1849 they again entered the lists, and their exertions were rewarded with a silver medal.

The application of paper, as a medium for the execution of architectural ornament, is by no means of recent origin in France. Examples of its use in the sixteenth century may be found. Some of the early decorations in the interior of the Louvre were made in carton pierre, formed by sheets of paper moistened with paste, laid one upon the other and pressed and rubbed into hollow moulds. The grand trophies and heraldic embellishments which decorate the vault of the ceiling of the Hall of Council of Henri II. were also in this material, as well as the ornaments of the choir of St. Germain l'Auxerrois, and the Hôtel des Fermes.

All these works were executed in the primitive manner we have described; but it is not to be imagined that so rude and laborious a method of working was long retained. The principal improvement in the manufacture was introduced by a sculptor of the name of Mezière, and carried out by his successor, M. Hire, who was likewise a sculptor. This improvement consisted in reducing the paper to a pulp, mixing it with plaster and size, and then pressing it into hollow moulds. This pulp contained within itself a cementitious element,

superseding the necessity for employing flour-paste, which had been used before to unite the successive sheets of paper. Since the days of Mezière and Hire, M. Romagnesi, an ornamental sculptor of great talent, has succeeded in developing to its highest extent the capabilities of carton pierre. The substance manufactured before his introduction to the business was so coarse in texture as to require covering with several coats of fine plaster, which again had to be cleaned up and sharpened by hand with cutting and scraping-tools, before gilding could be applied to it. M. Romagnesi, however, succeeded in reducing the pulp to so fine a state, that it became susceptible of rendering the finest lines of the moulder; and the gilder was thus enabled to apply his leaf at once. By this perfection the quality of the substance was greatly improved, and much greater economy was attained. The rich interior effect of many of the modern buildings of Paris is largely to be ascribed to the employment of this material. In the Tuileries, the Louvre, the Palais Royal, the apartments of the principal ministers, many churches, and other edifices, a great portion of the architectural enrichments are executed in carton pierre. Statues, even of considerable dimensions, have been produced in this substance, the lightness of which is one great recommendation to its use.

In this country we have been little less assiduously at work in effecting improvements in the manufacture. In papier mâché and in carton pierre, as applied to architectural decoration, it would be difficult to excel the productions, either of Messrs. Jackson or of Messrs. Bielefeld; while in the application of the substance to minor articles of furniture and decoration, in combination with the processes of japanning and inlaying, the works of Jennens and Bettridge, Lane, and M'Cullum and Hodgson of Birmingham, Walton of Wolverhampton, and Clay of London, leave little to be desired.

From an early period small objects, *bonbonnières*, *étui cases*, &c., have been made on the Continent in papier mâché; but it appears probable, from the accounts given by the French themselves, that the application of paper to architectural decoration was, if not of earlier introduction, at least more generally employed in England than in France.

In an essay "On the Use of the improved Papier Mâché in the interior Decorations of Buildings and in Works of Art," Mr. Bielefeld has made some interesting remarks on the decorations which preceded the employment of that material. He observes that, "with the Elizabethan style (the Renaissance of England), rich plaster ceilings were very generally brought into use; and in the more classic, or Italian styles, that followed, the same material was still more extensively and more boldly employed. As the art advanced, plaster became partially substituted for carved or panelled wood-wainscoting on walls. Both in that situation, and upon ceilings, foliage of the highest relief, and of the richest character, may at the present day be found in the more important edifices remaining of the seventeenth and beginning of the eighteenth centuries. These enrichments were generally worked, or rather modelled, by hand upon the stucco in its place, whilst still in a soft and plastic state.

"As this work had to be done on the spot, and with much rapidity of execution, in order to prevent the stucco from setting before it had acquired the intended form, the art was somewhat difficult. The workman had to design almost as he worked; therefore, to do it well, it was necessary that he should have some of the acquirements and qualities of an artist. This circumstance, of course, tended very much to limit the number of workmen, and their pay became proportionably large.

"It was no unnatural consequence that artisans thus circumstanced assumed a consequence that belonged not to their humble rank in life; it is said that they might have been seen coming to their work girt with swords, and having their wrists adorned with laced ruffles. Such a state of things was, as may be conceived, attended with many inconveniences to their employers; it was scarcely possible to preserve that subordination so essentially necessary in carrying on the business of a builder, and ultimately the workers in stucco, laying aside all restraint, combined together to extort from their employers a most inordinate rate of wages. It would be superfluous here to detail all the circumstances that followed; it is sufficient to state that, as might have been anticipated, the total ruin of their art was the final result of these delusive efforts to promote their individual interest.

"Contrivances were resorted to by the masters, which soon supplanted the old mode of working in stucco. The art of moulding and casting in plaster, as previously practised in France, was generally introduced; and the art of preparing the pulp of paper became improved and extended, so as ultimately to render practicable the adoption of papier mâché in the formation of architectural decorations. Thus, at last, was extinguished the original mode of producing stucco ornaments; and there, probably, has not been for many years a single individual in England accustomed to that business."



J. SMALLFIELD DEL.

M. HICKS WYATT SCULPT.

FRANK FORD LITH.

GOLD VASE ENRICHED WITH JEWELS AND ENAMELS
BY WATHERSTON & BROGDEN OF LONDON

LONDON PRINTED AND PUBLISHED JUNE 31 1857 BY DAVIDSON LITHOGRAPHERS TO THE QUEEN

GOLD ENAMELLED AND JEWELLED VASE,

BY WATHERSTON AND BROGDEN OF LONDON.

THE production of a magnificent specimen of gold plate is comparatively so great a rarity, that but for the stimulus afforded by the Great Exhibition, it may be questioned if any work of so ambitious a character as that which we now engrave would have been executed in England for many years to come. We cannot, therefore, but commend the energy which led Messrs. Watherston and Brogden to demonstrate as they have in this production the capability of English goldsmiths and jewellers to create works which, for sumptuous and delicate execution, may rival those produced at the best periods of the art in Spain and Italy by artists such as d'Arphes and Cellini.

The gentlemen by whom this vase was exhibited have for many years held a distinguished position as practical executants of every class of jewellers' work. Their establishment was originally founded by Mr. John Brogden, who held the important and honourable office of Prime Warden of the Goldsmiths' Company; and the business, after passing through two generations, maintains in its fullest integrity the reputation he originally acquired for it. Mr. James H. Watherston, the present head of the firm, is well known to those goldsmiths connected with the important office of verifying the quality and weight of the coin of the realm, from his publications on the subject. His elaborate "Tables showing the legally-appointed weight of gold and silver coins pursuant to Mint indenture, constructed for the use of the Goldsmiths composing the Jury of the Pix," are accepted and constantly used. His "Gold Valuer" is a more popular, though not less carefully constructed, little work.

The circumstances connected with the production of the beautiful vase now before our readers are of an interesting nature. Mr. Alfred Brown, its designer, had been in his youth most kindly assisted by Mr. Watherston, who had contributed to place him in the position which he now so honourably fills in the establishment of Messrs. Hunt and Roskell. In his studies at the Royal Academy, Mr. Brown succeeded in gaining all the honorary medals. An occasion presented itself in the Great Exhibition of 1851, when the exercise of the artist's talents appeared likely to render an essential service to his old friend and patron, and with a praiseworthy feeling he immediately offered to testify his gratitude to Mr. Watherston by devoting his best energies to his service. He accordingly designed the vase now engraved, which is equally honourable to the artist and the manufacturers.

Its body and foot are executed in the purest gold, of twenty-two carats fineness, which is equal to that of guinea gold. It weighs ninety-five ounces, and is the largest piece of jewelled and enamelled gold plate known to have been ever made in this country. The design was only settled in January 1851, and the vase was so far completed as to be ready for transmission to the Great Exhibition by the 1st of May. We learn from the "Official Descriptive and Illustrated Catalogue" that "the group surmounting the cover represents the United Kingdom, by the figures of Britannia, Scotia, and Hibernia. Britannia is in the centre, resting one hand on the trident, Hibernia is on her right, and Scotia on the left. Around the edge of the cup are four heads, symbolical of the quarters of the globe; below these are festoons of diamonds, representing the rose, thistle, and shamrock. Surrounding the body of the vase are relievos, representing Britons, Romans,

GOLD ENAMELLED AND JEWELLED VASE.

Saxons, and Normans, with the landing of the Romans, and the battle of Hastings. Beneath are two figures of Fame, descending with wreaths of laurel, crowning Nelson, Wellington, Milton, Shakspeare, Newton, and Watt, whose busts are introduced in concaves; while on the lower part of the cup are the figures of Truth, Prudence, Industry, and Fortitude, accompanied by their appropriate emblems."

The excellence of English jewellery is by no means a thing of to-day, as the most cursory examination of the subject will prove. The torques, armillæ, collars, and other decorations, which are constantly exhumed from the barrows of England, Ireland, and Scotland, display a dexterity of manufacture, rivalling the most perfect productions of Etruria. The Saxons were celebrated for their metal-works, as the proverbial reputation of St. Dunstan testifies. In an interesting article on Saxon Jewellery, contributed to the *Archæologia* by the Rev. Mr. Pegge, he mentions, quoting the Venerable Bede, that when Gregory the Great despatched Mellitus Paulinus and others, to assist Augustine in converting the Saxons, they brought with them into England many sacred vessels, which no doubt served as the primitive types from which the forms of subsequent church-plate were derived. We find that in the year 700, the travelled Wilfred, who imported many foreign workmen into England, was in the possession of large quantities of plate and jewels. King Oswald (A.D. 631) is related by Alcuin to have endowed churches with every variety of goldsmiths' work. Eddius distinctly describes costly articles in gold and gems to have been executed by "*inclusores gemmarum*," or jewellers; and speaks of them as at that time common and ordinary artificers. Bede mentions that Bishop Benedict brought workers in glass with him from France, and it is, perhaps, to them that we may owe many improvements in enamels and factitious gems. The same prelate also imported sacred vessels, and from his time down to the year 800 we meet with constant accounts of the most princely donations to the treasuries of the monasteries; the great majority of the component parts of which are described as being made by native workmen. William of Malmesbury states that the solid silver shrine containing the relics of the martyr St. Aldhelm, which were placed in that receptacle by King Ethelwolf, was decorated with representations of the miracles of the Saint, executed "*levato metallo*,"—*i. e.*, in chased-work. Whether these incisions were filled with enamel we cannot tell; but the ring of the monarch, which is so ornamented, and which is now preserved in the British Museum, clearly demonstrates the use of enamel-pastes at that time,—A.D. 800. The curious ring of Allstan, bishop of Sherborne, is of the same period, and bears an enamelled inscription. The "*Saxon Chronicle*" describes Alfred as instructing his goldsmiths and all other artificers during the intervals of his more important occupations. As the art of enamel obtained a firm footing in England, there is no reason to doubt that many such works mentioned in the inventories of the earlier sovereigns were executed by native workmen. During the reigns of the Edwards, under the Odos and Fitz Odos, vessels and ornaments of silver, copper, and gold, were constantly decorated with this elegant embellishment.

From the "*Royal Inventories*" and "*Household Expenses*," the "*Liberate Rolls*," the "*Mappæ Clavicula*," the "*Historia Eliensis*," and other sources, many curious particulars respecting ancient jewellery may be gleaned. The Great Seals and Monumental Effigies of English monarchs also illustrate the application of jewellery to personal ornament. The Wars of the Roses not only impeded the progress of the goldsmith's art in England, but of necessity caused the destruction of many precious objects. The art subsequently revived, and the inventories of Henry VII. and Henry VIII. prove their possession of almost unbounded riches. The quantity of the precious metals which at that period inundated Spain was not without its effect in this country, and led to the general adoption of rich personal ornaments and other decorations. This influx of gold and silver was worthily applied to artistic purposes by the celebrated Holbein, whose designs will ever remain an honour to the industrial arts of this country. This great artist was born at Basle in 1498. He was introduced here by the Earl of Arundel, and not only painted the portraits of the English nobility, but decorated their persons by beautiful articles of bijouterie, a constant succession of which he designed. In the British Museum is preserved a celebrated volume containing designs by Holbein for these objects. Several of them have been engraved by Hollar, by Mr. Shaw, and others. It is to be regretted that after the death of Holbein (in 1554) no very remarkable progress was made in this art. Under the House of Orange, the English jewellers were content to follow at a distance the designs of French and Flemish *petits maîtres* rather than to organise a style for themselves, and it is not until within very recent years that any considerable endeavour has been made to introduce novelty of form into the ordinary objects of the goldsmith's art.



H. MAYE, DEL.

M. DINWIDIE WYATT, DIRECT

T. BEDFORD, LITH

LUCA DELLA ROBRIA FRIEZES BY MINTON OF STOKE UPON TRENT

LONDON, PRINTED AND PUBLISHED JUNE 1856 BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

LUCA - DELLA - ROBBIA FRIEZES,

BY MINTON OF STOKE-UPON-TRENT.

IN the year 1850 Mr. Minton became the possessor of a terra-cotta frieze which was offered for sale in London. The graceful execution of that work attracted the attention of several gentlemen of taste, and particularly of the Baron Marochetti, who expressed his conviction that it had been wrought by the hands of Luca della Robbia himself. Mr. Minton, having attentively considered the means by which the effect of this object was produced, conceived that he could successfully imitate the material, and accordingly caused the artists in his employment to model a variety of objects upon which experiments might be made. The success of those attempts was manifested by the perfection of the specimens contributed by Mr. Minton to the Great Exhibition.

We shall proceed to offer a few remarks on the life and works of the immortal inventor of the material which has so long borne the name of "Della-Robbia" ware:—

From the gossiping, but always delightful, biography of Vasari, we gather that Luca della Robbia was born at Florence in the year 1388, and that on his arriving at the proper age he was apprenticed by his father, whose name was Simone the son of Marco, to a certain Leonardo di Ser Giovanni, a goldsmith of note in the same city, under whose instruction he learned in a short time to draw and model in clay and wax. At the early age of fifteen years, Luca was taken to Rimini, to work for Sigismondo Malatesta, and his labours there gained him the appointment of one of the sculptors to the celebrated Campanile of Giotto, at Florence. The nature of the subjects he carved there, and their mode of treatment, indicate how deeply he had drawn for inspiration on classical sources at that comparatively early age. The admiration these figures obtained induced the cathedral authorities to entrust to him the sculpture of the celebrated organ-gallery over the door of one of the sacristies, Donatello executing a somewhat similar work on the opposite side of the church. The date of this event Vasari places as early as 1405; but Rumohr* makes it as late as 1438, and apparently with justice, as he gives a copy of the order by which Luca was bound to execute the subject. It was probably while engaged in the execution of an exquisite bronze for the same sacristy that he made that discovery which alone would have sufficed to immortalise him. This was,—that a clay model, baked and covered with a vitreous glaze, became perfectly durable, and might be exposed to the action of the elements for a length of time without suffering at all. This curious glaze, which remains to the present day uncracked, and unchanged in colour or texture, on all his productions, is by Vasari (and Baldinucci, following him) described to have been composed "of tin, a kind of fire-clay (used by metal-founders), antimony, and other metals."† Both authors agree, that the first work executed by Luca in this manner was the group of the Resurrection, over the bronze door; and the second, the subject of the Ascension, over the entrance to the second sacristy in the cathedral at Florence.

The glaze at first was colourless, or pure white, but the ingenious artist soon learnt, by the admixture of various metallic oxides, to enrich what may be termed his transparent enamel with various colours; and in this way he was enabled to decorate both basso and alto-reliefs with various tints. We accordingly find

* *Italienische Forschungen.*

† "Fatto con stagno, terraghetta, antimonio, ed altri minerali."

in Rumohr, the copy of an agreement dated A.D. 1446, whereby Luca engages to execute for the Cathedral "an Ascension with the twelve Apostles and the Holy Virgin, in his *terra cotta invetriata*, of the same material as that placed in the arch of the sacristy, and to introduce colour into the mountain and trees."

The fame of the invention soon spread abroad, and orders poured in from all quarters, not only from the Florentines, but even from France and Spain. Luca himself could not execute all these orders, and he was obliged to call to his aid two assistants, Ottaviano and Agostino; the former his brother in blood, the latter his brother only in affection and profession. Vasari, Baldinucci, and Cicognara all agree in making Agostino really the brother to Luca; but from the documents cited by Rumohr, and by Mariotti in his "Lettere Perugine,"* there can be but little doubt that these three great authorities are in error on this occasion, and, unfortunately, their names have sufficed to make the fallacy a popular one. Be this as it may, it is at least certain, that Agostino and Ottaviano assisted Luca in carrying out this invention, greatly to their mutual profit, and that any difference that may exist between their works is that of degree only, and not of kind. Until Luca's death, which, according to Lord Lindsay, took place in 1480, but which other authorities have placed as early as about 1460, he continued labouring diligently in his favourite material; and through his own efforts, and those of his family, all that amazing quantity of works in *terra cotta invetriata* that ornament Tuscany to this day were produced.

Agostino, though not perhaps possessed of the creative genius of Luca, was still an admirable artist, as a minute examination of the beautiful façade of San Bernardino at Perugia, the most remarkable work ever executed in the material under consideration, must convince the most sceptical. The Confraternità of San Bernardino resolving, at the instigation of Ludovico Forni, in the year 1460, to case the front of the chapel erected in honour of their patron saint, in the most elaborate and beautiful manner possible, summoned Agostino in the following year from Florence, and placed their work in his hands.

His design, which covers the whole façade of the chapel, is extremely beautiful, and we are quite at a loss to convey by words any satisfactory idea of the grace with which the minutest details are executed—the charming expression and freedom of the figures—or the pleasing effect produced by the colour, and varied texture of the materials employed. These consist of a reddish marble, deepening here and there to a chocolate colour; a pure white marble; and the blue "faience," or "della Robbia," terra cotta, which serves as a ground to "throw up" the figures in relief.

Agostino has engraved on this, his *chef d'œuvre*, an inscription to the following effect:—"Augustini Florentini Lapidaræ;" and the "Italienische Forschungen" supplies us with a copy of the original order addressed to the treasurer of the Municipality of Perugia, on the presentation of which Agostino was to receive the sum of one hundred florins (forty bollæ to each florin) as remuneration for his labour in the fabrication of this beautiful specimen of art.

After the death of Luca, Ottaviano, and Agostino, their mantle appears to have fallen on Andrea, the son of Marco, another brother of Luca; and in his hands, and those of sundry cousins, the secret was religiously kept. The popular opinion, based on Vasari's account, appears to be, that with the family expired the secret; but Baldinucci throws some light on this period of its existence. He asserts, that the secret of applying these vitreous glazings to terra cotta passed through a female relation of the Della-Robbia family into that of Andrea Benedetto Buglioni, who lived as late as the time of Verocchio. This Andrea conducted many works, both in and out of Florence, among which were a Resurrection and some angels in the church of the Servi; and various other specimens in the churches of San Pancrazio, San Pietro Maggiore, &c. Andrea Buglioni bequeathed his "craft and mystery" to his son Santi, at whose death, in the year 1568, the process passed into an oblivion from which it has never been recalled, though many efforts have been made to effect its resurrection: the most strenuous and successful appear to have been those of Antonio Novelli, a sculptor of the seventeenth century, and he would seem to have failed only from his own irritability and impatience. Rumohr intimates, in a correct and almost prophetic spirit, that in these days of scientific chemistry, and increased mechanical and manufacturing resources, the revival of this elegant art would be as easy as it might be made graceful. That under the hands of Mr. Minton it will receive its highest developement we have neither fear nor doubt.

* "Come io Aghostino d'Antonio, sehulptore Fiorentino abitatore in Perugia e Fabbrichatore de la Fazata di Sto Bernardino della detta Citta," &c. It is to be noticed that in this extract the name of Agostino's father is mentioned as Antonio, whereas that of Luca, all agree, was Simone. The only possibility of Rumohr's error is that the "d'Antonio" may not be a patronymic, but only indicative of the apprenticeship of Agostino.



H. HUMPHREYS, DEL.

M. DUBBY WYATT, DIRECT

A. WARREN, LITH.

BORDERS FROM INDIAN MANUSCRIPTS.

LONDON, PRINTED AND PUBLISHED JUNE 1ST 1852, BY DAY & SON, LITHOGRAPHERS TO THE QUEEN.

INDIAN MANUSCRIPTS.

WE cannot be surprised to find that the harmony of colouring, which was so essential and distinctive a characteristic of the fabrics contributed to the Great Exhibition from the continent of India, should pervade in an equal degree their illuminated manuscripts. Every reader of the "Arabian Nights' Entertainments" must remember the unction with which the most favourite tales and romances of the East are directed to be recorded in letters of gold; and our earliest received ideas of Oriental luxury would be imperfect, if they did not include the decoration of the labours of the scribe with ornaments as glowing and as florid as the language of the author.

Although it appears that the "Rig-Vedas," and other early poems of India, are usually written in a simple manner, and frequently with a style on leaves of the nature of papyri, no sooner did the Mahomedan dynasty obtain power and influence than we find the royal edicts and other documents glowing with the rich colouring and ornamentation peculiar to the followers of the Prophet. There can be little doubt that the intercourse which existed between Nusher Van of Persia and the court of Byzantium, and the frequent interchange of artists which took place between those countries, led to a corresponding extension of the art of illumination.

We are told by Sir Frederic Madden, in his interesting introduction to Mr. Shaw's "Illuminated Ornaments," that "the process of laying on and burnishing gold and silver appears to have been familiar to the Oriental nations from a period of remote antiquity; and although there are no instances of its use in the Egyptian papyri, yet it is not unreasonable to believe that the Greeks acquired from Egypt or India* the art of ornamenting manuscripts in this manner, which they, probably, conveyed to the Romans. Among the later Greeks the usage became so common that the scribes or artists in gold were termed *crusographoi*, and seem to have constituted a distinct class." The great luxury of the age of Constantine appears to have been that of writing in letters of gold on a vellum tinged with a purple colour. Sir Frederic Madden observes, that the earliest instance of this practice is recorded by Julius Capitolinus, in his life of the Emperor Maximinus the younger, to whom his mother made a present of the poems of Homer, written on purple vellum in golden letters. "This took place at the commencement of the third century. For upwards of 100 years the practice seems to have continued to be of rare occurrence; but towards the end of the fourth century, we learn from a well-known passage of St. Jerome that it had become more frequent. It was, however, confined solely to copies of the Scriptures and devotional books, written for the libraries of princes and for the service of monasteries. The celebrated *Codex argenteus* of Uphalas—written in silver and gold letters on a purple ground, about the year 361—is, perhaps, the most ancient existing specimen of this magnificent mode of calligraphy; after which may be instanced the copy of Genesis at Vienna, the psalter of St. Germain des Près, and the fragment of the New Testament in the Cottonian Library (Titus, c. xv.),—all executed in the fifth and sixth centuries."

It will be remembered that the caliphs of the race of the Abbacide made frequent applications to the emperors of the East for permission to copy such writings of the Greeks and other ancient authors as had been preserved amid the wrecks of the learning of the classical ages, and we cannot but observe that a

* An interesting illustration of the reaction upon each other in successive ages of the arts of different countries is afforded by the suggestion, that that art, which was ultimately transmitted to the Indian continent through the agency of the later Greeks, may, possibly, have been originally acquired by their predecessors from the source to which it was subsequently reconveyed.

INDIAN MANUSCRIPTS.

remarkable opportunity was thus afforded to the Mahomedan races of reproducing the matter of those authors in the manner peculiar to the Byzantine scribes. Hence that race, which was destined subsequently to spread itself so largely over the face of the globe, acquired in their practice of illuminating manuscripts, as in their architecture, many of the details of that style which was carried to such remarkable perfection under the auspices of Justinian and his successors; and hence we trace in the Indian manuscripts of the present day many indications of that particular scale of colour and those forms of foliage which we generally recognise as peculiar to the remains of the art of the Lower Grecian Empire. Thus we find the richest gold and silver decorations lavished on Oriental manuscripts. Pietro della Valle, the greatest of the early Italian travellers, mentions a copy of the Gospels in Syriac, written in gold, which he saw at Aleppo in 1625, and which was reputed to have been at least 400 years old. Sir Frederic Madden observes that "at Berlin, according to Wolf, is a Hebrew manuscript of the thirteenth century, the titles and initial words of which are in gold. In the Sloane Collection, Nos. 2835-2838, are rolls in the language of Thibet, written in gold and silver on dark blue paper; and, among the Arabians and Persians, examples of later manuscripts, written and ornamented in gold and silver, are found in abundance, and display a beauty and minuteness so truly wonderful as to surpass the efforts of any European artists."

Remembering the Byzantine source from which, as we conceive, much of the art of India was derived, it is not surprising to find notices of manuscripts in which, instead of the original purple ground, a golden one was substituted, upon which the text was written in red letters and decorated with ornaments in the most brilliant colours.

It has been frequently remarked that, owing to the traditional preservation in India of ancient processes and patterns, many of the arts which its people originally derived from foreign sources still exhibit, in all their integrity, the peculiar characteristics of that nation or that influence from whence it sprung. Thus, if we examine the different Indian manuscripts in the museums of Europe, ranging from the fifteenth century to the present time, but little difference will be found to exist between them; and the decorations of the address of thanks to Sir Jamsetjee Jeejeebhoy of Bombay, executed but the other day, recall most vividly the traditions of the imperial edicts and proclamations of the court of Byzantium. As might reasonably be expected, the most exquisite illuminated manuscripts have been executed in Persia, in which country the old processes are preserved in their highest perfection.

was no rubbing or filing afterwards; as it was left by the chisel, so it was put up, and so it remained,—unless, as was frequently the case, it was considered desirable to enrich it with colour.

Another occupation of the wood-sculptor was the preparation of those large “retables” and “triptichs,” which about this time came into general use, for decorating the altars of the churches. These were often of great size; and although those in France seldom reached up to the vaulting of the church, as they frequently do in Germany, whence the fashion was derived, yet very few will be found in the latter country to compare in beauty with the two now preserved in the museum at Dijon. Many were the triptichs executed in France during this and the ensuing century, but the various causes which have wrought so much destruction to works of art in that country have rendered them very scarce. Detached figures, which have once formed parts of them, may, indeed, be frequently met with; but it is much to be doubted whether they were ever so much in use as in Germany. The fifteenth century saw the use of ivory, in a great measure, laid aside, as a material for devotional ornaments, and wood substituted in its place, with such success, that many of the small objects—such as rosaries, &c.—are executed in so delicate a style, that they possess the refinement of gems rather than that of mere wood-carvings. Thus we often find a space of two inches long by half-an-inch deep containing several figures, bas-reliefs, inscriptions, &c. With respect to the application of wood-carving to the stalls of the later Gothic style, many of these still remain in the churches and cathedrals. By far the finest of all are those of Amiens,* executed in 1508: Jean Turpin was the principal workman; and Antoine Avernier, *tailleur d'images*, carved the *subsellæ*, at thirty-two sols each.† On comparing these stalls with the nearly contemporary ones at Ulm, we cannot but be struck with the superiority of the work of Jean Turpin. So little were these monuments appreciated in France during the last century, that in 1760 the Abbé Laugier bitterly reproached the canons for not pulling down what he describes as being “chargés d'un amas de petits colifichets tudesques.”

In the sixteenth century the furniture, which had formerly received but little sculpture, properly speaking, was covered with all the delicate ornamentation of the Renaissance. During the reigns of Charles VIII. and Louis XII., and the early part of that of Francis I., there is little to object to, since the ornament is always graceful. When a more ambitious Italian style, influenced by the school of Michael Angelo, was introduced into France, all became changed. It is true that the composition and drawing of the figures were improved; but the arabesques disappeared, and were succeeded by scrolls and flowers, which gradually grew heavier, until, at the end of the reign of Henri II., they became absolutely ugly. Mythology usurped the place of sacred subjects, and is often found connected with them in a most ludicrous juxtaposition. Still, the great masters of the Renaissance by no means neglected the art. Jean Goujon executed the doors of St. Maclou at Rouen, and many of the wood ornaments at the château of Ecouen; and Primaticcio and Giulio Romano furnished designs for the carved-wood decorations of the royal palace of Fontainebleau. The art long continued to be practised by monastic workmen. Thus we find in the Musée de l'hôtel de Cluny an *armoire*, or large cupboard, in walnut wood, made by the monks of Clairvaux, and presented by them to their abbot in the reign of Henri II. The chief ornaments of this, as well as of most of the other *armoires* of the time, consisted of sundry Caryatides.

About the end of the sixteenth century one mannered style pervaded all Europe. It is true that many of the wood-fittings at St. Cloud and Versailles are imbued with that regal splendour of style which distinguished the earlier years of Louis XIV.; but in that of his successor this temporary elevation sunk again into degradation, and the labours of the wood-carver were principally confined to furniture, and the execution of large gilt candlesticks and altar decorations of equivocal taste. It is not to be imagined, that because the larger works were at the above low ebb the smaller ornaments suffered equally; on the contrary, many of those are really valuable as works of art. They consist, for the most part, of small copies of some well-known antique groups of figures in *la style bergère*; of beggars, represented half in wood and half in ivory; of small likenesses, and occasionally of statuettes. All this ceased at the great Revolution. Men were too much immersed in politics to occupy themselves in the arts. The career of Napoleon brought security but not peace,—and it was not until the restoration that wood-carving began to revive. How rapid its progress has been of late years was attested by the exquisite delicacy of the works contributed to the Great Exhibition by MM. Lienard, Knecht, Gruel, Fourdinois, Ringuet le Prince, and others.

* Messrs. Jordain and Duval have published a most excellent work on the subject.

† The total cost was 11,230 livres, 5 sols.



PLATE LXX.

DAMASK TABLE-COVERS,

BY ERSKINE BEVERIDGE OF DUNFERMLINE.

THE subjects of our present engraving may be considered as excellent specimens of the variety and pleasing effect which may be produced in this particular material without incurring an unreasonable cost from the complexity of the design. If space permitted we would willingly trace the various steps of the manufacture, from the growth of the raw material to the finished article, believing, as we do, that they are by no means so generally known as the corresponding processes in cotton and woollen fabrics. It must suffice, however, to indicate the most important. The flax-plant is extensively cultivated in Holland, and in the district about Riga, and although the flax hitherto grown in Great Britain has been inferior to that of the first-named countries, it is to be hoped that the attempts which have been recently made to improve its cultivation in Ireland will be ultimately crowned with success. After the flax-plant has been gathered and dried in stacks, it is steeped in water to remove the glutinous matter which unites the fibres; having been again dried, it is subjected to the process of "breaking," or "scutching," by which the bark and woody portion of the plant are separated from the stringy fibres. It next undergoes the operation called "heckling," a kind of combing, which reduces the material to the silky texture for which it is remarkable; and it is then no longer known by the name of flax, but is called "line;" while the coarser portion, which is separated in the process of heckling, is called "tow."

The "line" next passes through the several operations of spinning, by which it is converted into linen yarn, and if intended for weaving it is reeled into hanks containing about three thousand yards. Flax, unlike cotton, silk, or wool, is spun wet, and within the last few years it has been discovered that it can be spun to a much greater degree of fineness with hot water than with cold. In another respect the manufacture of flax differs from those of cotton or wool: the latter are exclusively carried on in large factories by the aid of a great variety of machinery; in the flax manufacture this is only partially the case, the earlier processes being to a great extent performed by hand, and a considerable portion of the weaving of the different fabrics being done by the handloom at the houses of the operatives.

Damask is one of the most beautiful articles produced by the loom from linen yarn. It is a twilled fabric, and much used for table-cloths. Dunfermline, in Scotland, and Ardoyne and Lisburn, in Ireland, are celebrated for the beauty and excellence of their manufactures. Brown damask is the same article unbleached, and being deemed stronger in that state, is used as more economical. Diapers are damasks of smaller size and simpler patterns. There are also union damasks and diapers made of linen and cotton combined.

In the following account of the manufacture of this article, we have much pleasure in acknowledging the valuable information which has been most kindly furnished us by Mr. Erskine Beveridge of Dunfermline.

The damask manufacture was introduced into Ireland about 1764, and at the present time the finest quality of Irish damasks is not excelled, if it is even equalled, by the choicest products of Saxony. These fabrics may be divided into two classes, one consisting of the finest double damasks, and the other of single damasks and diapers. The first-named may be considered as articles of luxury, not so much from the intrinsic cost of manufacture, which is not great, but from the great expense incurred in getting up special designs. The second division comprises the great bulk of coarse goods for home sale and export. Cheapness being the chief

DAMASK TABLE-COVERS.

desideratum, they are produced at a price so low as to encourage their consumption among all classes of society. The principal export is to the United States of America. As yet the Continental markets have scarcely been tried, although notwithstanding the high rate of duty, it is probable that there would be a considerable sale of the lower priced fabrics. To all who have seen the coarse plain linen with which the tables of the middle classes in France and Germany are generally covered, it will be evident that diapers, or single damasks, would be much preferred among a people so alive to the embellishment of their houses and the tastefulness of their furniture.

In Scotland Dunfermline takes precedence in the manufacture of fine linens, as damasks, &c., and claims the honour of its early introduction into that part of the country. According to a tradition devoutly believed in by the natives of the place, a citizen of the name of Blake, about the beginning of the last century, gained access to the weaving factory at Drumsheugh, near Edinburgh, by feigning imbecility, and carried away with him the mysteries of damask weaving to enrich his native town. Whether this be a myth or a true tale, it is certain that with the exception of a small carpet-factory in the deserted monastery, no textile fabrics were at that time produced in the locality, excepting a few huckabacks, bed-ticks, and linsey-woolseys; and it was not till nearly the last decade in that century that the damask trade acquired sufficient importance to attract London buyers. The competition among these gentlemen then became so strong that many amusing anecdotes are still related of the manufacturers concealing a portion of their stock, lest the buyer should purchase the whole, and leave them nothing to show to the next comer.

At that early period the designs were so rude, and the workmanship so imperfect, that it was by no means uncommon to see a bird with a *hiatus* of half-a-yard between the body and head; while trees and flowers, which it would puzzle a Linnæus or a Paxton to classify, formed the staple of the patterns then in vogue. About the beginning of the present century a better taste began to prevail, principally through the exertions of Mr. J. N. Paton (father of the celebrated artist). The introduction of the Jacquard loom, by giving greater precision to the patterns, and increased facility of production, lent a fresh impulse to the trade; and in 1830, the establishment of the late Drawing Academy by the manufacturers and the Board of Trustees for promoting Scottish Manufactures, still further developed its resources.

From that time to the present the productions of the Dunfermline looms have gradually improved, both in excellence of fabric and of design: many new textures have also been introduced. Diapers, huckabacks, sheetings, floor-cloths, counterpanes, white-on-brown and bleached damask cloths, and table-covers of every colour and material, are all extensively manufactured there. Between five and six thousand persons are employed in their production. Of these, the brown and bleached table-cloths are the most important items; and next to these the coloured table-covers, which, like Birmingham guns and Sheffield knives, are found in every quarter of the world, from the shanties of Kentucky to the mosques of Damascus, the ancient metropolis of the damask trade. It is now about twenty-five years since the manufacture of damasks was introduced at Dunfermline: the first articles of the kind were of coloured cotton on white linen, the patterns being of the old table-cloth designs. The specimens engraved were exhibited by Mr. Beveridge, who employs upwards of 1500 workers, partly in his steam and hand-loom factories, and partly at their own homes in the various branches of the trade. The lower design is from a drawing by Mr. Owen Jones; and the upper was composed by Mr. Waller Paton, a young artist of the town, who is successfully prosecuting the study of his art. There cannot, we think, be a doubt, that the late Exhibition tended materially to improve the character of the designs of the Dunfermline productions; for not only were the best efforts of the artists on the spot called into activity, but sketches were procured from artists of distinction, both native and foreign. The number of cards employed in these examples is only about 2400, while for some of the table-cloths by the same exhibitor, such as the Cupid and Psyche, and the George and the Dragon, from sixteen to twenty thousand were required, and the expense of patterns and cards exceeded 150*l.* for each. The yarns used for the Dunfermline table-linen are principally procured from Leeds, Preston, Belfast, and Dundee. From the present healthy condition of the trade of the district there is every reason to expect that it will attain a development little anticipated by those even who, like Mr. Beveridge, have the most contributed to its present high position.



DESIGNED BY WILLIAM DE WYLLIE

PRINTED BY G. & C. COLLIER

PLATE LXXI.

PAPER-HANGING,

BY W. WOOLLAMS AND CO., OF LONDON.

THE specimen of paper-hanging from which our plate was engraved was originally displayed at the third exhibition of recent British Manufactures and Decorative Art, at the Society of Arts, in 1849, on which occasion a silver medal was awarded by the Council for this and other productions of the same firm. Every colour in the pattern, it may be scarcely necessary to remark, is printed from a separate block, and we have ascertained from the manufacturers that between sixty and seventy blocks were required for the pilaster alone; while those for the whole design have cost no less than £140.

The establishment of Messrs. Woollams was originally founded by Mr. William Woollams, Senior, the father of the gentlemen who now conduct it, and his knowledge of the principles and practice of the business were acquired in the celebrated establishment of Mr. Sherringham, of Great Marlborough Street.

In our notice of Plate XLII. we traced the progress of the rich hangings which preceded the employment of paper as a mural decoration in England, and we shall now endeavour to examine the commoner substitutes which were used by the middle and poorer classes.

Tapestry, it may readily be imagined, from its costliness, was hung only in the more important apartments and halls, whilst in the ordinary rooms materials of an inferior description were employed, which, though often called tapestry, were probably only cloths or canvas, stained or painted in oil, or with a resinous size, generally strained on frames and fixed to the walls. Theophilus* described the method of painting walls, &c. with oil paint, and Cennino Cennini (1437) treats on the methods of painting in oil on wood in panels and on walls, a practice, he says, much used in Germany ("che l'usano molto i Tedeschi"). Sir Charles Eastlake, in his valuable work, "Materials for a History of Oil Painting," gives a very interesting account of the cloth-painting of the English and Germans, and their peculiar process of tempera:—

"In the Treviso record preserved by Guid' Antonio Zanetti,† mention is made of a German mode of painting (in water-colours) on cloth. This branch of art seems to have been practised on a large scale in England during the fourteenth century, so as to attract the notice of foreigners. The following passages occur in Le Begue's copy of the MSS. of Alcherius, 'Item, in the same original it is thus written: On Tuesday, the 11th day of February, 1410, I caused a copy to be made in Bologna of certain receipts lent to me by Theodoric of Flanders, an embroiderer at Pavia, which receipts the same Theodoric said he had obtained in London, in England, from the artists who used the water-colours hereinafter described.' The transcriber resumes: 'After the above, it was thus written in the original,—The aforesaid Theodoric, from whom I had these receipts, said that in England the painters work with these water-colours on closely woven linen, saturated with gum-water. This, when dry, is stretched on the floor over coarse woollen and frieze cloths, and the artists, walking over the linen with clean feet, proceed to design and colour historical figures and other subjects. And, because the linen is laid quite flat on the woollen cloths, the water-colours do not flow and spread, but remain where they are placed, the moisture sinking through into the woollen cloths underneath, which absorb it. In

* "De Diversis Artibus Schedula."

† "Trattato della Pittura."

like manner, the outlines of the brush remain defined, for the gum in the linen prevents the spreading of such lines. Yet after this linen is painted, its thinness is no more obscured than if it was not painted at all, as the colours have no body.' It is remarkable that a native of Flanders, not unacquainted with art, should notice this practice in England, and record the process and materials, for the inference is, that the peculiar method he describes was not practised in his own country at the period in question. In the beginning of the fifteenth century, the ordinary tempera-painting was certainly common in the Netherlands, rooms being then, as Van Mander states, frequently hung with large works of the kind (executed with egg-and-size colours), instead of tapestry. He remarks this when speaking of Roger of Bruges, a scholar of Van Eyck, and continues, 'I have such hangings at Bruges, which I am inclined to think were executed by him.' The peculiarity of the English method appears to have been its absolute transparency.

"As regards the English and German paintings on cloth, there can be little doubt that the thinness of execution for which they were remarkable, though it did not preclude gilding, was adopted with a view to durability. Sandrart affirms that the ordinary (more solid) tempera had been found not to last in the Netherlands, meaning that it was affected by damp. The priority of records respecting the vehicle is in favour of England; indeed from a passage in an early manuscript it may be inferred that the process, such as it was, had been borrowed by the Germans from this country. It is possible that the result of this method of tinting linen was to produce something analogous in appearance to our present printed cottons, for 'A drawing sent by Albert Durer to Raphael is described by Vasari as having been painted 'in water-colours on a fine linen cloth, which showed the transparent light on both sides, without white, water-colours only being added, while the cloth was left for the light; which thing appeared wonderful to Raphael.'" Whatever method of colouring may have been used, the style of the decoration seems to have been of the same character."

Mr. Hunt observes that "The devices employed in the oil-painted decoration and in water-work are shown by Falstaff's address to Mrs. Quickly to have been similar to those which were used in the better sort of tapestry, 'and for thy walls a pretty slight drollery or the story of the prodigal, or the German hunting in water-work, is worth a thousand of these bed-hangings and these fly-bitten tapestries.' But the mottoes being adapted to less elevated orders of society, were in a more familiar style. Dr. Bulleyne, in a work entitled 'A Dialogue both Pleasant and Pitiful,' &c. 1564, says, 'This is a comelie parlour, and faire cloths, with pleasant borders aboute the same, with *many wise sayings painted upon them.*' The style and point of these *wise sayings* are displayed in a publication of 1601:—

'Read what is written on the *painted cloth*,—
Do no man wrong; be good unto the poor.
Beware the mouse, the maggot and the moth;
And ever have an eye unto the door.'

"And Shakspeare, in his 'Rape of Lucrece,' says,—

'Who fears a sentence, or an old man's saw,
Shall by a *painted cloth* be kept in awe.'"

Archdeacon Nares defines *painted cloth* "as a species of hangings for rooms very frequently mentioned in old authors, and generally supposed and explained to mean tapestry; but which was really cloth or canvass painted in oil, with various devices and mottoes." It is related that "Mayster Thomas More in hys youth devysed in his father's house, in London, a goodly hanging of fyne painted clothe, with nyne pageauntes, and verses over every of these pageauntes."

These painted cloths were also imported as well as tapestries, for we find that in the insurrection of the Londoners against the foreign traders on May-day, 1517 (the Evil May-day as it was long called), amongst the goods of the importations of which by the "merchant strangers" complaints were made, painted cloths are mentioned. In the seventeenth of Elizabeth, in a petition addressed to the Commons, the painters set forth, "that painting on cloth is decayed." It is probable that other forms of surface decoration were introduced at that time, such as embossed leather, with gold ornaments on coloured grounds; the panning of walls also, and perhaps hand-painted paper-hangings, for from statutes in France of the date, 1586, paper-staining is found to be a recognised trade.



INDIAN KINCOB PATTERN,

IN WHITE SILK AND GOLD THREAD.

IN our notice of Plate XXIV. we entered at some length upon the subject of the principal localities of the continent of India, in which the richest manufactures of the above description are produced; and in our observations upon Plate XII. we referred to the process by which the gold thread, or *badla*, is prepared for the use of the weaver. On the present occasion we shall confine our remarks to the peculiar effects arising from the combination of a metallic lustre with silk and other materials.

Any conclusions to which we might ourselves have arrived concerning the principles which should guide the designer in the arrangement of patterns for such fabrics have been, in a great measure, forestalled by Mr. Owen Jones, who, in his interesting Lecture on the employment of Colour in the Decorative Arts, and in his Catalogue of the Articles purchased from the Great Exhibition for the use of the School of Design, has entered with zeal and ability into a consideration of those sources of expression by the command of which the Indian designer is enabled to produce his most harmonious and brilliant effects.

In the lecture above referred to Mr. Jones remarks, that the fundamental principles upon which gold should be used in combination with colour in decoration are as follows:—Firstly, that where ornaments of any colour are upon a gold ground, the ornament should be separated from the ground by an edging of darker colour. The reason he alleges for this principle is, “that the gold ground, from its greater power, has a tendency to invade, and overflow on to the coloured ornament, and this is at once arrested by the darker edging.” Secondly, that gold ornaments on any colour should be outlined by black. The principle involved in this dogma is precisely the converse of the preceding proposition; since in the one case the black line keeps the ground, and in the other the pattern, within its proper limits. Thirdly, that ornaments of any colour may be separated from grounds of any other colour by edgings of white, gold, or black. The reason assigned for the peculiar qualification of gold as a vehicle for rendering outline distinct, and preventing the confusion or merging of contrasted colours, is, that it acts as a neutral, and by its interposition “prevents the simultaneous contrasts from being sensibly felt, and preserves the integrity of the colours.” Fourthly, that “ornaments in any colour, or in gold, may be used on white or black grounds without outline or edging; the white ground, reflecting all the rays, destroys by its superior intensity the white rays reflected by the coloured body, and its form becomes perfectly defined. The black ground absorbs all the rays, or reflects but very feebly white rays, so as scarcely to modify the colour juxtaposed.” Mr. Jones observes, in reference especially to Indian fabrics, that “when gold ornaments are used on a coloured ground, where the gold is used in large masses there the ground is darkest, and where the gold is used more thinly there the ground is lighter and more delicate. When a gold ornament is used on a coloured ground, the colour of the ground is carried into it by ornaments or hatched work in the ground colour on the gold itself.”

It is a fortunate circumstance for the students of design in this country that a collection of such specimens of Oriental fabrication as best illustrate the accuracy of these principles should have been purchased by the Government for their use. In them we may remark how frequently the general effect and harmony of the whole has been assisted by what, at first sight, would appear to be a defect in the process of manufacture.

Where a warp consists of gold or silver thread, the threads of the weft being brought to the surface enrich it with a geometrical or conventional pattern. The necessity so to interweave the coloured weft with the gold warp thread as to form the network which holds the fabric together, exactly produces that subdued repetition of the pattern colour throughout the golden ground which serves to prevent the pattern from appearing cutting, or too harshly relieved from the ground itself.

When we recur historically to the long chain of experiments which have been steadily worked out, so as to afford a satisfactory solution of the problem how best to unite the precious metals with colour, we shall find that they have been proceeding from the earliest antiquity. In Mr. Yates's valuable work on the Weaving of the Ancients, we find many allusions to cloth of gold, as well as to gold united with silk and interwoven in patterns. Throughout the Roman empire fabrics of this description were well known and popular, though ruinously costly. The gold and silken webs of the island of Cos are frequently alluded to in the writings of the poets and satirists. The Babylonian stuffs are mentioned by Dr. Royle "as being adorned both with gold and variously-coloured figures. A peacock's train is compared to a figured Babylonicum enriched with gold; while the peplum, or shawl, had the greatest skill and labour bestowed upon its fabrication, and various objects were frequently represented upon it."

The great predilection which the Romans manifested for these golden dresses, and for golden enrichments generally, was no doubt inherited from them by their descendants, the inhabitants of the Lower Empire, long after the traditions of the fine arts had perished. Thus we find the Byzantines indulging in golden writings, in gilded mosaics, and in the richest embroidery, jewels, and enamels. From the remains which have come down to us of their attainments in these departments of the industrial arts, we have no difficulty in recognising the fact that they had arrived at a just appreciation of the important principles to which we have alluded. Thus every colour and every pattern in their mosaics are separated clearly and distinctly from each other and from the adjacent gold ground by the fine white line of the cement which forms the junction of the tesserae. In their enamels every coloured paste is separated from its adjacent coloured paste by the delicate thread of gold which forms the minute cells into which those pastes are inserted. In their manuscripts, where colour is applied upon a gold ground, the outline of the pattern is invariably edged with a black or white line, or shaded with a neutral colour, approaching black. In the few specimens of embroidery which remain, or of which representations have been preserved, the same system of treatment may be noticed. Thus there can be little doubt that although their theory may not have been based upon any general perception of the limits which science prescribes, still their practice was invariably systematic.

When the Moors imbibed from the inhabitants of Byzantium their first principles of design, they no doubt availed themselves of the developement which the art of blending gold and colours harmoniously had attained in the Lower Empire. We find in most of the Moorish productions a strict attention to those practices which conferred so agreeable an effect on the Byzantine works. The use of the dark line to prevent gold patterns from spreading on to coloured grounds, or gold grounds from encroaching on coloured patterns, was constantly adopted; and the introduction of the white line, to distinctly trace the contour of every form, was carried perhaps to so great an extent as to degenerate into mannerism.

That taste for gold and colours which the followers of Mahomet originally derived from the Greeks was carried by them to the East, and there at once found a congenial atmosphere. Adopted to heighten those effects of splendour, by the display of which alone the monarch could habitually awe his subjects into subserviency, the most dazzling combinations of glowing colours and gorgeous materials speedily became the essential concomitants of every *darbar*, or festival, and every religious ceremony.

Thus, no doubt, we may still trace in these golden fabrics of the East the retention and perfected treatment of those very designs which, in their earlier days, had made the glories of the court of Justinian proverbial amongst historians. The two facts that, on the one hand, the Greeks and Indians, with probably no scientific consideration of the subject, should have invariably practised a system of arrangement based upon scientific laws of which they were profoundly ignorant; and that we, on the other hand, by an analysis of their practice, should now be enabled to verify the scientific laws on which pleasing effects depend, combine to furnish an interesting evidence of the relation which invariably subsists between the tendencies of man to specific forms of the beautiful, and those immutable laws of nature which determine the conditions of all beauty in specific form.



FRIDERICVS CVILELMVS . N . REX . BORVSSORVM
 ALBERTO EDVARDO PRINCIPI WALLIAE
 IN MEMORIAM DIEI . BAPTXXV . MIAN . A . MDCCCXLI

W. E. POZZI DEL.

M. D. GRAY WYATT, DIRLEX.

J. A. VINTER, LITH.

A PORTION OF A SILVER SHIELD.

PRESENTED BY HIS MAJESTY THE KING OF PRUSSIA TO HIS ROYAL HIGHNESS THE PRINCE OF WALES, ON THE OCCASION OF HIS BAPTISM

LONDON, PRINTED AND PUBLISHED BY DAY & SON, LITHOGRAPHERS TO THE QUEEN

PLATE LXXIII.

A PORTION OF A SILVER SHIELD

PRESENTED BY HIS MAJESTY THE KING OF PRUSSIA TO HIS ROYAL HIGHNESS THE
PRINCE OF WALES, ON THE OCCASION OF HIS BAPTISM.

THIS shield is one of the finest examples which have been executed in modern times of the variety of silversmiths' work which is generally known as "repoussé," a process by means of which all the numerous bucklers, ewers, and other similar objects which decorate the private collections and public museums of Europe are executed. All who have visited those repositories must have had opportunities for admiring the beautiful works in which the revived taste for the antique was so admirably carried out by the artist metal-workers of the sixteenth century, headed by the immortal Cellini.

The centre of the shield exhibits the head of our Saviour, which is surrounded by emblematical representations of the two sacraments, Baptism and the Lord's Supper; with their Old Testament types, the striking of the rock by Moses, and the fall of manna in the wilderness. These are contained in four compartments, divided by a cross and surrounded by an ornamental border. At the extremities of the arms of the cross are represented the Evangelists, noting down in the Gospels the events they have seen and the truths they have heard; and thus communicating to all futurity the plan of man's salvation. The Christian virtues, Faith, Hope, Charity, and Righteousness, are introduced into the arabesques that rise above the figures of the Evangelists. In a band enclosing the central subjects the twelve Apostles are placed, with some reference to the emblematical figures just mentioned: thus, Peter is seen under Faith; on the right and left of him are Philip and Andrew; under Hope we find James, with Bartholomew and Simon on either side; John is placed beneath the figure of Charity, accompanied by James the Less and Thomas; under Righteousness is Paul, and on his right and left are Matthew and Judas; St. Thaddeus also is represented as going forth into the world to teach and baptize, and to propagate the faith of the Redeemer.

In the relievo which runs round the edge of the shield are represented the Betrayal, the redeeming Atonement of Christ, and his Resurrection. Another portion presents our Lord's triumphant entry into Jerusalem; in a third, the descent of the Holy Ghost, the preaching of the Gospel, and the first formation of the Church, are pictured. The fourth and principal compartment contains an allegorical representation of the birth of the Prince of Wales, and of the King of Prussia's visit to England, accompanied by Baron von Humboldt, General von Natzmer, and Count von Stolberg, and welcomed by H.R.H. Prince Albert and the Duke of Wellington; St. George and the Dragon, represented standing on the beach, sufficiently indicate the country to which the visitors are approaching. The inscription on the shield runs thus:—

FREDERICUS GULIELMUS REX BORUSSORUM
ALBERTO EDUARDO PRINCIPI WALLIÆ.
IN MEMORIAM DIEI BAPT. XXV. JAN. A. MDCCCXLII.

The whole work, both in design and execution, reflects the greatest credit on all those concerned in its production. The general idea of the subjects was suggested by the King himself, and was admirably worked

out by Doctor Peter von Cornelius, whose reputation is European. The decorative parts were designed by M. Stüler, Professor of Architecture at Berlin. The execution of the goldsmith's work and enamel was entrusted to M. G. Hossauer, assisted in the modelling by M. A. Fischer, and in the lapidary work by M. Calandrelli; the chasing was executed by M. H. Mertins.

We gladly embrace the present opportunity to present our readers with a slight sketch of the life and works of the great artist to whom we owe the beautiful design now before us, and whose name must ever be intimately associated with the history of that great movement which has given to modern German Art a life and vigour which, if it fail in all respects to excite our affections, at least succeeds invariably in stirring our passions and affecting our imaginations.

Born at Düsseldorf in 1783, M. Cornelius was placed by his father, Inspector of the Gallery of that town, at the school of Langer; but so little talent did he evince for drawing, that his masters had no hope of his advancement in this art. He, however, followed his own method with better success. Pecuniary necessity having caused him to solicit the charge of decorating in chiaroscuro the Byzantine church of the little town of Neuss, he determined to execute this work with great conscientiousness, and set himself to study the works of Raphael and the Carracci through the medium of Dutch engravings. These models, in conjunction with the striking and original forms of the architecture of the cathedral itself, gave rise to the style and taste he afterwards carried out with so much success. Even at this early date he showed a decided predilection for the antique. Shortly afterwards, in 1810, he commenced his designs from Goethe's "Faust," which were completed in 1811 at Frankfort. In the same year he visited Rome; and in the frescoes which he executed in that city and at Munich, M. Cornelius has himself indicated the feeling with which he studied the different phases of art which Italy presents to the student. Confining his labours to cartoons and frescoes, our artist has painted but one picture in oil, "A Deposition," with figures of small size. This picture he presented, as a mark of respect, to M. Thorwaldsen.

In 1820 the King of Bavaria commissioned him to paint the three saloons of the Glyptothek, at the back of the edifice connecting the Greek and the Roman sculpture contained in the wings. Of these, only the rooms at the two extremities gave any scope for the display of the artist's talent, that in the centre being but a narrow passage. In these three saloons M. Cornelius has sketched the whole story of antiquity—in the first, picturing the gods; in the last, the heroes; and in the intermediate one, to form, as it were, a link between heaven and earth, he has represented the story of Prometheus.

In 1825, while these frescoes were yet unfinished, M. Cornelius received from King Louis the title of Director of the Academy of Munich, and, at the same time, the Order of Civil Merit and Personal Nobility. He was next directed to paint in fresco the Church of St. Louis, the erection of which had just been confided to M. Gaertner. He repaired to Rome to compose the cartoons for this work, in order that he might have the advantage of studying the great Italian masters. On his return to Munich with his studies he was welcomed with a reception which will long be remembered, and which resembled the triumphal entry of a conqueror. The King himself went out to receive him, accompanied by all the artists in the capital, and a large part of the population.

The architect placed at the disposal of M. Cornelius three large wall-spaces and four vaults; being the ends of the transepts and the choir, and the vaults over them, also that in the centre: in the vertical spaces of the transepts the artist has painted the mission of God the Son in two subjects, the commencement and the termination of the Saviour's life, represented by the Adoration of the Magi and the Crucifixion. In that of the choir he has treated the Last Judgment; the subject on the central vault is the Empire of the Holy Spirit, while that of the choir displays the power of the Father, who, surrounded by the heavenly host, creates the world. Other sacred subjects are represented in various parts, in which are figured different holy personages.

The taste and genius of M. Cornelius being more in harmony with the severe school of Byzantine than with that of classical art, he has been more successful in his treatment of these frescoes than in those of the Glyptothek. The same reason accounts for the success of his drawings in illustration of the "Niebelungen Lied," executed at Rome. Of late years his most important labours have been his cartoons and frescoes for the Campo Santo at Berlin, and his series of designs from Dante's "Paradiso."



W. H. WOOD

M. J. JOBB, NYATT, GORE

W. HEDFORD

VASE IN TERRA COTTA MODELLÉD BY JOHN THOMAS OF LONDON
 FOR EDWARD LAWRENCE BETTS OF LONDON

AND PUBLISHED BY DAY & SON, THE OFFICE OF THE QUEEN

VASE IN TERRA COTTA.

EXHIBITED BY E. L. BETTS OF LONDON.

THE subject of our present Plate was contributed by Edward Ladd Betts, Esq., and was made from materials raised upon his estate in Kent, after a design by Mr. John Thomas. It is an excellent specimen of the capabilities of the material under the hands of a judicious and skilful master. The power of reproduction, which the plasticity of the substance affords, renders it particularly applicable for architectural purposes, where the same ornamental parts may be frequently repeated; and while it may be moulded into the most delicate forms, its hardness when baked is such as to resist the influence of the weather for a much longer period than most of the building-stones in use.

We have taken occasion in former articles to notice some particular branches of the use of moulded and baked clay for ornamental purposes on the Continent. We propose now to give a slight sketch of the use of the material in England. Although the manufacture of bricks appears to have been carried on in England with scarcely any interruption since the time of its introduction by the Romans, we are unable to refer to any examples of ornamental brickwork or moulded terra cotta previous to the time of the Tudors. A plastic material was well suited to produce the elaborate detail of the architecture of that period, and numerous stately halls in Norfolk, Essex, and other counties, show that our ancestors knew how to avail themselves of its capabilities. For the most part, however, the work of that period must be considered rather as moulded brickwork than ornamental terra cotta, since the masses are generally small, and are worked in with the ordinary bricks, with which they accord in colour. Most persons are familiar with the richly-moulded brick chimney-shafts, which are, perhaps, the chief feature of these mansions: as some of the most striking examples we may mention Nether Hall, in Essex, of the time of Richard III.; Oxburgh Hall, Norfolk; Brickley Hall, East Barsham; Gifford's Hall, and West Stowe Hall, all of the time of Henry VIII. At Sutton Park, Surrey, the walls are of the usual red brick; but the principal architectural features, such as the sides, heads, and mullions of the windows and doors, are formed in large pieces of burnt clay, of a strong cream-colour, made in moulds, and partly ornamented in relief. At Layer Marney House, of the same period, the decorations on the summit, as well as those of the windows and cornices, are made of a species of white brick, cast in moulds, in large and thick masses. These last examples may, perhaps, be looked upon with greater propriety as instances of ornamental terra cotta.

The gateway built by Henry VIII. at Whitehall, about 1530, may also be quoted. Pennant,* in his "History of London," says, "To Holbein was owing the most beautiful gate at Whitehall, built with bricks of two colours and disposed in a tessellated fashion. On each front were four busts in baked clay, *in proper colours*, which resisted to the last every attack of the weather." These busts were placed in circular niches, and from the style of their execution were probably of Italian origin; indeed, Pennant's remarks as to their colour would almost lead to the conclusion that they were the work of some member of the Della Robbia family.

At Hampton Court we again find some busts in terra cotta, introduced in the same manner as those at Whitehall. On the tower of the Eastern gateway of the entrance court there are two busts of the Roman emperors, Trajan and Hadrian; on the opposite gateway there are two corresponding ones of the emperors

* "Some Account of London, by Thomas Pennant, 1793."

Vitellius and Tiberius, and four others on the turrets of the second court. All these appear to be of Italian workmanship, and they are said to have been presented to Cardinal Wolsey by Pope Leo X. at the time he made these large additions to the palace. They are also regarded as the work of the Della Robbias, but probably without sufficient reason, as they possess scarcely any of the characteristics of their work.

During the reigns of the Stuarts we continue to find numerous examples of the use of moulded brickwork and terra cotta; as principal among which we may designate Holland House, Kensington.

From the decline of taste during the succeeding period, and from the diminished intercourse with Italy, we need feel but little surprised that the art should have lain dormant until its revival at the latter part of the last century by Miss Eleanor Coade, a lady whose talents and spirit of enterprise were called into activity by adverse fortune. Pennant thus alludes to the manufactory she established:—"In a street called Narrow Wall is Mrs. Coade's manufactory of artificial stone. Her repository consists of several very large rooms, filled with every ornament which can be used in architecture. The statue, the vase, the urn, the rich chimneypieces, and everything which could be produced out of natural stone or marble by the most elegant chisel, is here to be obtained at an easy rate. Proof has been made of its durable quality. A beautiful font, the ornament of Debden Church in Essex, and which was formed on a most admirable antique model, was given to it by the liberality of Richard Muilman Trench Chiswel, Esq., and is the admiration of every person of taste."

From an interesting paper on the subject of terra cotta by Mr. Charles Fowler,* we glean some further particulars respecting this manufactory:—"About sixty years ago Miss Coade, from Lyme Regis, embarked in a small manufactory of artificial stone in Lambeth, which, by her perseverance and good management, eventually attained a considerable degree of celebrity. To this original establishment in Lambeth the merit is due of greatly improving the composition of the material, and the processes by which its permanent character was attained. The proprietor had also sufficient enterprise and discrimination to avail herself of the talents of some distinguished artists; and thus produced works of a superior character, which may fairly vie with those of the chisel. The bas-relief in the pediment over the western portico at Greenwich Hospital, representing the Death of Nelson, was designed by West, and executed by Bacon and Panzetta, who also modelled many other distinguished works. The rood-screen at St. George's Chapel, Windsor, was executed in the same material."

Miss Coade carried on the manufactory successfully for a considerable number of years, and many distinguished artists of the day executed works in terra cotta for her. Flaxman displayed his genius there, and even Benjamin West laid down his brush for a time and modelled ornamental statues. Mrs. Siddons modelled a bust of herself and of her brother, John Kemble; Mrs. Damer also executed several works. But Bacon was Miss Coade's most persevering assistant, for which his apprenticeship to a *potter* had well prepared him. Allan Cunningham, in his "Lives of British Artists," says:—"It was the practice of sculptors in those days to send their sketches and small clay models to the pottery furnace to be burnt; and these young Bacon examined with a curious eye, and a desire to imitate what he could not fail to see were superior to the groups and figures manufactured by his master."

When Miss Coade established her manufactory Bacon was engaged as a modeller, as he then occupied a very humble position compared to that which his talent enabled him subsequently to attain. To quote again from the life of that industrious artist:—"We find him," observes Mr. Cunningham, "a successful labourer in Coade's artificial stone manufactory, soon after its establishment in 1769, and in great favour with the proprietor, who felt that his talents were making a profitable impression on the public. Groups and statues as large as life, coats of arms, sculptured key-stones, wreaths of flowers, and all that species of work known by the general name of ornamental, were here modelled, moulded, and burnt." Although Miss Coade realised a fortune out of her manufactory, it does not appear to have been continued after she gave it up,—probably some time previous to her death, which occurred in 1821.

With respect to modern instances of the use of terra cotta, Mr. Fowler remarks that "St. Pancras Church may be considered as one of the most important; the greater part of the ornamental details being formed of this material, at the large outlay of 5400*l.* The work was executed by Mr. Rossi, from the designs of Mr. Inwood the architect; and according to present appearances the material promises to be very durable.

At the present time, in consequence of the rapid development of national taste, there exists a fine field for the extended employment of terra cotta, and although much has been done and is now doing by the Ladyshore Company, by Messrs. Ransomes of Ipswich, Mr. Blashfield, and others, that amount represents, we conceive, but inadequately the extent of the demand which would immediately follow a cheaper and greatly increased supply.

* Read at the Institute of British Architects, June 10th, 1850.



BED ROOM FURNITURE IN MARQUETTE BY THOLOPE DE LYNNON

LONDON: PRINTED AND PUBLISHED JULY 1857 BY R. & J. BAYNE, 14, BUNYARD STREET, LONDON.

MARQUETRY FURNITURE,

BY MESSRS. TROLLOPE OF LONDON.

WHEN we take into consideration the early period at which the Tuscan artists manifested their predilection for that peculiar style of mosaic known as "Florentine," which consists of a combination of precious stones and marbles cut into various forms, so as to produce a regular pattern, it is not surprising to find that marquetry, which is but a variety of the art of mosaic, should appear to have had its origin in the same district. The ecclesiastics and rich merchants of Pisa, Florence, and Sienna, vied with each other in lavish expenditure on the decorations of their churches and palaces. In their furniture especially extreme richness of ornament prevailed, and their sumptuous mode of employing various coloured woods is still attested by many an ancient chest, formed to contain the *trousseau* of a bride. In the chapel of the Palazzo della Signoria at Sienna there exist a series of pictures, illustrative of the Creed, executed in brown, black, and light-coloured wood, and said to have been designed by the great Taddeo Bartolo, with whose style they certainly display a striking coincidence.

According to Vasari,* many such works had been made by the old masters,—*da nostri vecchi*,—which, although known as *lavori di commesso* by the moderns, were, among the earlier professors of the art, described as *tarsia*. "The best works which have been made," says he, "in this manner were executed in Florence, in the time of Filippo di Ser Brunellesco, and especially by Benedetto di Maiano. This artist, like all his predecessors, had in his works employed dark and light-coloured woods only. It was reserved for Giovanni di Verona to extend the art, by giving various artificial colours to the materials used, by means of waters, coloured infusions, and penetrating oils. To obtain brilliant high lights he was accustomed to use delicate slips of willow." Vasari further remarks that it was the practice of some workers in this method to deepen their shadows by the application of a hot iron; and of others to use oil of sulphur, and compounds of corrosive sublimate and arsenic, so as to obtain any desired tint. This latter process was adopted in the celebrated works of Fra Damiano, in the church of San Domenico at Bologna.

We meet with an interesting illustration of the popularity of marquetry in Italy, in the writings of Sabba Castiglione,† who, in describing the practice of the most tasteful Italians of the middle of the sixteenth century, observes, that "some adorn their houses with inlaid work by Fra Giovanni da Monte Oliveto, or Fra Rafaello da Brescia, or the Legnaghi; most excellent masters in such works, and chiefly in architectural scenes. But above all, those who can obtain them decorate their mansions with the works, rather divine than human, of Fra Damiano da Bergamo, of the order of the Dominicans, who excelled, not only in perspectives like those other worthy masters, but in landscapes, in backgrounds, and, what is yet more, in figures; and who effected in wood as much as the great Apelles did with his pencil. I even think that the colours of these woods are more vivid, brilliant, and beautiful, than those used by painters; so that these most excellent works may be considered as a new style of painting without colours—a thing much to be wondered at. And what adds to the marvel is, that though these works are executed with inlaid pieces, the eye cannot, even by the greatest

* "Introduzione alle Vite," capitolo 21.

† "Ricordi ovvero Ammaestramenti." Venezia, 1562. For the opportunity of referring to this rare work we are indebted to the kindness of Sir Charles Lock Eastlake, who alludes to the art now under our consideration in his interesting letter to H. Bellenden Kerr, Esq., "On the Decorations of a Villa," in "The Country House," edited by Lady Mary Fox.

MARQUETRY FURNITURE.

exertion, detect the joints. This worthy father is unapproached, up to the present time, for his skill in tinting the woods of any colour, and in imitating stone and marble; and I think he will remain without his equal in future ages. May God give him grace, as I trust he will, to conduct to a successful termination the works in S. Domenico at Bologna. I believe and feel certain that these will be considered the eighth wonder of the world; and like as the Babylonians, the Egyptians, and the Greeks, may have boasted of their temples, pyramids, colossus, and monuments, so happy Bologna may glory in and boast of the choir of San Domenico."

The perfection which was attained in Italy in this art soon spread into France, where in the reign of Louis XIV. it attained, both in its larger form of parquetry, or flooring, and in its application to domestic furniture, very great perfection. Great skill was arrived at in dyeing the woods, and burning them, to give the shadows; but in some of the earlier works it will be found that the materials employed were chiefly of their natural colours. The latter is, of course, the highest class of marquetry, and is, in reference to that composed of stained woods, what *pietre dure*, or genuine mosaic of real stones, is to that made of composition or false stones. The excellence which obtained in France under the monarchy was lost for a time during the revolutions which convulsed the commercial system and industrial energy of that country.

Although in a rude form, marquetry had long been practised in England, as may be seen in some of the fittings of Elizabethan and Jacobean houses; still there is little doubt that, in its finer and more artistic shape, considerable advantage was derived from the introduction of foreign workmen, to whom we must ascribe many of the curious commodes and standing closets occasionally seen in houses of the time of Queen Anne and the earlier Georges. In modern days the art has been reintroduced; and the late Mr. Baldock, of Hanway Street, London, who was a dealer in ancient curiosities and modern imitations of them, did much to extend a taste for marquetry, and to improve the character of works of this description. Many examples of the art were contained in the Great Exhibition, but certainly none more admirable than those by Messrs. Trollope, of which we now engrave a specimen. Both in general design as cabinet furniture, in beautiful decoration by marquetry, and in tasteful and elaborate execution, the suite of which this object formed a part reflected the highest credit on English upholstery; and we regret, therefore, our inability to furnish other illustrations of it.

Modern marquetry in general has been open to objection as to its design and execution. Both English and foreign specimens have been overcharged with colour produced by artificial means; and these colours have neither proved durable, nor have they been harmoniously applied. From an inequality in the thickness of the veneers employed,—which, instead of being properly thinned to a uniform substance, are filled up by glue or other matter,—the smoothness of surface so necessary to a good effect has been too frequently impaired. This is simply the fault of the workman; because marquetry is laid with ordinary glue, in the same way as common veneering, and if carefully executed should be as durable as the plainest article of furniture.

Impressed with these defects, and especially with the transient colour of stained or dyed woods, and the impossibility of restoring them when faded, Messrs. Trollope resolved to exert all their taste and ability in the preparation of the objects they contributed to the Great Exhibition. The designs were furnished principally by a junior member of their firm; the working drawings made by artists in the establishment; and great care was taken with the modelling and working of the carved enrichments. In designing the marquetry, strict botanical accuracy, both in form and colour, has been most successfully studied; and, as a matter of minutiae, it may be observed that even the fibres of the leaves, which are usually indicated by the graving-tool, are of wood of the necessary colours. Repudiating all artificial colouring, Messrs. Trollope are justified in the hope which they express that these works will improve and mellow by time; and if scratched or accidentally injured, their original beauty may be restored by scraping.

In some remarks which those gentlemen have kindly furnished us with they observe, that "In the choice of woods for marquetry, the greatest judgment and experience are required to select such as shall be permanent in colour, and such parts of them as shall produce the desired effect; moreover, much depends upon the direction in which the veneers are cut. About twenty different kinds of wood, producing a great variety of effects, according to the parts selected and the mode of cutting, were employed in the articles exhibited. Among these may be named holly, cam-wood, red sandars, tulip, sandal, and purple woods; ebony, Barbary wood, Russian maple, *lignum-vitæ*, mulberry, kingwood, amboyna, walnut, porcupine wood," &c. Messrs. Trollope's firm was established in the year 1788, and they have been extensively employed as decorators and upholsterers under most of the eminent architects of the last fifty years. One of their principal carvers is Mr. Jefferys; and the name of their principal worker in marquetry is Vandenbrand, whose patience, perseverance, and skill, they warmly acknowledge.



M. HUGH WYATT, DESIGNER

J. SLIEGH, DEL. ET LITH.

GREEK EMBROIDERY

GREEK EMBROIDERY.

THE object we engrave forms a portion of a rich *fermeli*, or upper jacket, which was included in a complete suit of elaborate *Palikar* costume, contributed to the Great Exhibition by one of the principal manufacturers of Greece.

We gather from the information contained in the "Official Illustrated Catalogue," that the art of embroidery, both in silk and gold, has of late been considerably improved in Greece. The silk-embroidered dresses are of an inferior description, whilst those executed in gold thread are only used by the higher classes. As respects men's apparel, gold embroidery is only in use among the irregular troops of the army, and there only by the most wealthy. The costume for ladies consists of a short mantelet, which, if embroidered in silk, costs about 60 drachmas,* and if in gold from 100 to 400 drachmas, according to circumstances. The male costumes sent for exhibition, comprising the entire dress, varied in price from 2000 to 6000 drachmas. The finest of these were executed by workmen, who, from their taste having been cultivated in the School of Design established by King Otho, have been enabled to give a more than usually artistic character to the objects they have produced.

That splendour of dress, which, in the midst of great penury, the true-born Greek clings to as the indispensable mark by which his pretensions to gentility may be recognised, is proverbial. Many of the modern Greeks may thus be said, like the gallants of the Field of the Cloth of Gold, to carry their fortunes on their backs.

Where any great complexity of design is involved, or any peculiar richness of material employed, the work is executed by individual tailors, each trading on his own account and employing a few occasional journeymen only. The system of maintaining a large establishment of workmen, or executing these labours in factories, does not yet appear to have been contemplated by the Greeks. Thus it is that every dress in which superior ornamentation is required has to be specifically ordered, and, excepting in the largest towns, it is extremely difficult to find any such garments ready made or kept in stock. It appears that the district of Janina, in Albania, is that most celebrated for the superiority of its embroidery, and the good taste of its designs; and many portions of Greece are supplied from thence. Next in celebrity to Janina, comes Athens; but between these and the smaller towns no very great difference can be said to exist: for so popular is this elaborate style of enrichment, and so universal the demand for gorgeously-decorated costume, especially on such occasions as marriages and other great festivals, that usually, even in the smallest towns, workmen may be found capable of understanding and executing a complicated and elaborate order. The character of the ornament varies but little throughout the country. It appears, however, that there are two traditional classes of design; one resembling the Turkish, and consisting generally of irregular scrolls with occasional quaint interlacings, and odd angular projections, and the other recalling that peculiar type of spiral-work which may be regarded as the Ionian characteristic of ancient Greek art. It is rare, however, to find either of these styles perfectly and consistently carried out; since while natural good taste induces an inclination for the ancient Greek style, the caprices of fashion, and the effect of the long subjection of the

* The Greek drachma is equal in value to about 8d. English.

GREEK EMBROIDERY.

country to Ottoman rule, have caused the introduction of a mixture of Constantinopolitan taste. Hence has arisen a hybrid style, in which, however, the Turkish manner strongly predominates.

It is not to be imagined that the rich jackets and other garments, such as the *doulamas*, *fustenellas*, gaiters, &c., covered over with enrichments and complicated interlacings of gold or silver thread, can be by any means universally worn: their use must obviously be confined to the aristocracy; whilst more humble individuals wear a more homely variety of costume, in which, however, though the cloth is coarser and less costly, and though wool and thread take the place of gold and silver, still the general effect aimed at is much the same throughout all classes. From some information with which we have been obligingly favoured by Mr. R. P. Pullan, we find that the cost of a rich suit complete is about 35*l.*, whilst a more common description of dress, although still very handsome, may be had for about 10*l.* 10*s.*

The style of costume of Albania, it is well known, is almost precisely similar to that of Greece. We gather from the interesting notes of Mr. Edward Lear,* that "of all the tribes of that country, that of the Ghegheria surpasses all its neighbours in gorgeousness of raiment, by adding to their other vestments a long surtout of purple, crimson, or scarlet, trimmed with fur, or bordered with gold thread or braiding. Their jackets and waistcoats are usually black. The Albanian bridal attire is most splendid. Purple silk and velvet, elaborately embroidered in gold and silver, form the outer garment; the patterns worked by hand with the greatest taste: two or three under-vests covered with embroidery; full purple trowsers; innumerable chains of gold and silver coins and medals; with a long white and several coloured silk handkerchiefs, complete a dress which is only worn on great fête days, or such great occasions as marriages and christenings."

While the most important part of the preparation of Greek costume is executed by men, much of the more laborious portion is executed by women. Certain patterns become traditional in families, but in many cases such is the skill of those employed that they will commence the execution of an elaborate piece of ornament with neither drawing nor any other sort of guide before them. Sketching in with the needle the general outline of the ornament with which they propose to fill up the space allotted for decoration, they proceed at once to apply the gold or silver thread. The principal parts of the costume on which decoration is lavished consist of the lower part of the sleeves, and the back of the upper jacket, the front of the vest which is worn beneath, and the lower part of the front of the *fustenella*, or garment, which in form resembles the kilt. The gaiters are always most splendidly ornamented. The cap usually worn is the fez, which is decorated only with a gold tassel; the most usual colours are scarlet and dark purple.

A considerable developement of the general manufactures of Greece has taken place of late years, and many materials essential to the making up of their ordinary costume, which were formerly obtained from Turkey, and even from Italy, are now produced in the country itself. Thus the great silk factory, which was established by Sig. Lucas Ralli on the Piræus at Athens, about six years ago, is now in full work, and produces annually a large quantity of silk; the greater portion of which is consumed in sashes and belts for the men, and rich garments for the women.

* "Journals of a Landscape Painter in Albania, &c."





BRISTON 1862

M. J. BY WYATT DIRBY

WINDYBUSHWOOD

THE BOY AT THE STREAM A STATUE BY JOHN FOLEY, ESQ. OF LONDON
 CAST IN BRONZE BY HATFIELD IN LONDON

LONDON PRINTED AND FOR SALE BY GAY & CO. STATIONERS TO THE ROYAL SOCIETY

A YOUTH AT A STREAM.

A STATUE BY FOLEY, A.R.A., CAST IN BRONZE BY HATFIELD.

IN his life of John Bacon, the distinguished sculptor, Mr. Allan Cunningham alludes to bronze-casting as one of the many branches of art to which that distinguished artist applied his talents. "Then and long afterwards," he remarks, "an air of secrecy and mystery was observed concerning the art of casting in metal; and a process at once simple and easy was taught to be regarded as something magical. Of the materials which composed the external and internal mould—the mode of rendering them safe for receiving the liquid, burning metal—the melting of the copper—the quantities of alloy, and the proper degree of heat,—the working artists spoke in a mysterious language, resembling in no small degree those conversations on alchemy so happily ridiculed by Ben Jonson. The veil has been raised a little of late from the mystery of bronze-casting. In the splendid foundries of Chantrey and Westmacott colossal statues, twelve feet high, are cast at a couple of heats; and the whole process is exhibited to any one whom curiosity or chance may happen to conduct to the artist's studio when the moulds are ready and the metal melted."

The composition of bronze for different purposes—such as medals, bell-metal, gun-metal, and works of fine art—is, indeed, now well understood by artists and manufacturers. The subject is referred to in a valuable "Manual of Metallurgy," by Mr. John Arthur Phillips; and there are some interesting notes on the subject by Mr. Robert Hunt, in the "Art-Journal" for May 1852 (p. 149). From these sources we learn that all the ancient Greek coins are bronzes, containing tin and copper only; while the earlier Roman coins consist of an alloy of copper, tin, and lead. Occasionally, zinc and silver were mixed with copper in the coins of the ancients. Mr. Phillips found that "all the bronze weapons of antiquity, whether the Roman sword or the British celt, were of similar composition, consisting of copper, 90; and of tin, 10." Mr. Hunt observes, that "in modern times the most celebrated works in bronze are those of the brothers Keller, at Versailles. These celebrated founders paid more attention to the composition of their bronze than was usual in the time of Louis XIV., or is general in the present day. The statues at Versailles are found by chemical analysis to consist of copper, 91·68; tin, 2·32; zinc, 4·93; and lead, 1·07. The zinc and the lead are added to produce greater fluidity in the melted mass, and to improve the colour of the metal. The bronze statue of Louis XV. is composed of copper, 82·45; zinc, 10·30; tin, 4·10; lead, 3·15. In melting bronze, much care is required to prevent the tin, which is a volatile metal, from being lost. An incautious founder might commence his work with a bronze of the best proportions, and conclude with nearly pure copper, the tin having passed off as oxide of tin in the furnace." Mr. Hunt cites the column of the Place Vendôme in Paris as an instance in which this has actually occurred.

Whilst, however, the purely scientific elements of bronze-casting are no longer shrouded in mystery, there are some artistic details of finishing and colouring, upon which the effect of works in this material chiefly depend. Mr. Hatfield, to whom the public are indebted for the very beautiful figure which we now engrave, may be regarded as having achieved a complete mastery over these details; and although perfectly justified in declining to communicate them to the world during his lifetime, he will not, it is to be hoped, allow them to be lost after his death.

A YOUTH AT A STREAM.

Before, however, we advert to that gentleman and his previous productions, a few words are due to the distinguished sculptor of the graceful figure before us, and to the work itself. The "Youth at a Stream" was characterised last year (in a series of papers in the "Morning Chronicle," which we have already quoted) as "one of the most graceful and refined statues in the whole Exhibition. The elegant lines of the composition, the roundness of the limbs—never losing beauty, and yet sacrificing no anatomical proprieties—remind us forcibly of the antique; although in no portion of the figure can be detected any servile imitation of ancient precedent. The timid action of the advanced leg—the foot just touching and shrinking from the water—is beautifully expressed; and the varied composition of all the lines adapts the figure singularly well for reproduction in bronze."

Mr. FOLEY, A.R.A., like too many other English artists, has not had the advantage of foreign travel, nor of prosecuting his studies under any particular master. He has, however, been assiduous in his devotion to Nature, and in his study of the best models of Art which this country can afford. He was originally a student at the Royal Dublin Society, and afterwards at the Royal Academy of London. The history of his artistic progress may be briefly told; for his works, though admirable, are few in number. In the year 1838 he produced a statue of "Innocence," being his first attempt at an original work. His exquisite group of "Ino and the Infant Bacchus" was completed in 1840, and has been executed in marble for the Earl of Ellesmere. A figure of the "Wanderer" was exhibited in 1842; and in 1844 Mr. Foley exhibited the model of the present exquisite work in Westminster Hall. The grace and beauty of the figure were at once universally recognised. The model was purchased by her Grace the Duchess of Sutherland, and is now at Trentham; and Mr. Foley very soon afterwards received instructions from the Royal Commissioners to execute a statue for the Houses of Parliament. The "Youth at a Stream" was reproduced as a statuette in bronze, for the Art-Union of London. The model for the statue of "Hampden," since executed in marble, and placed in St. Stephen's Hall, Westminster, was completed in 1847; and, besides proceeding with other works for the Royal Commissioners, Mr. Foley has modelled a composition called the "Mother," which may be seen in the present exhibition of the Royal Academy (1852).

In a communication with which Mr. Foley has obligingly favoured us, he adverts to the extreme difficulty which he experienced in the execution of the subject of our engraving. The exact type of nature he required was not attainable; and it was necessary, from the peculiarity of the action, to deal with it to a great nicety, to prevent its becoming stiff and fixed. It was obviously difficult to drill the models he had to use into the spirit of the action. Mr. Foley justly observes, "The style of figure here represented is far more difficult to master, unless in a state of repose, than a more muscular form. If the anatomy be too much developed, the grace and softness peculiar to the subject are lost; whilst if it be not rendered sufficiently distinct, the work becomes tame and insipid. At one time I thought of giving it up as an insurmountable task."

Mr. JOHN AYRES HATFIELD, who has so successfully produced Mr. Foley's work in bronze, received only three years' instruction in art, and that of a very ordinary description. Having been apprenticed to a worker in metal, he entered into business for himself before he was twenty years of age, and is still a young man. His early operations were limited to works in bronze and or-molu for Messrs. Baldock, Swaby, Emanuel Brothers, and other dealers. About ten years ago, under a commission from the Art-Union of London, he successfully reproduced in bronze a small marble bust of Hebe, by Mr. A. Gatley; and he has since been employed by several distinguished connoisseurs and artists. Being introduced to the Duke of Sutherland, he restored for his grace a large bronze figure of Genius, which had been blown from the summit of the clock-tower at Trentham; and the ability he displayed in this work excited the admiration of Sir Charles Barry, and others well qualified to appreciate such works. Mr. Hatfield has since been employed by Her Majesty at Buckingham Palace and Windsor Castle. In the year 1848 he received a silver medal from the Society of Arts, for some admirable specimens of chasing; and in the following year His Royal Highness Prince Albert, as President of the same Society, presented to him the gold medal for his bronze castings. Besides the bust of "Hebe" already mentioned, Mr. Hatfield has executed for the Art-Union of London a figure of "Iris Ascending," by W. B. Kirk, and a bust of Her Majesty, reduced by Mr. Thorneycroft from the original by Chantrey. In his zeal for the attainment of perfection in his art, Mr. Hatfield has undertaken numerous experiments; and has twice endangered his life by accidents arising in the prosecution of them.



P. H. DELAMOTTE DEL

M. DIGBY WYATT, DIRECTOR

F. BEDFORD, LITH.

VASE IN WHITE CHINA BY JOUHANNEAUD & DUBOIS OF PARIS.

LONDON PRINTED AND PUBLISHED JULY 15TH 1852 BY DAVY & SON, LITHOGRAPHERS TO THE QUEEN

VASE IN WHITE CHINA,

BY JOUHANNEAUD AND DUBOIS OF PARIS.

IN our remarks on Plates XIV. and XXXI. we have endeavoured to bring together some general information concerning the progress of the manufacture of porcelain in France, as illustrated by the history of the royal manufactory at Sèvres. In the present notice we shall follow up those remarks by tracing the coincident developement of the ceramic art in the same country, when stimulated by a spirit of commercial enterprise instead of state patronage and monopoly.

There is scarcely any of those branches of industry which may be regarded as staple in every great country, the history of which exhibits more rapid developement or more popular extension than that which involves the employment of that primitive instrument, the potter's wheel. Thus it is remarked by M. Costaz,* that there were only four manufacturers of porcelain residing at Paris in the year 1789; whereas their number had increased in the year 1806 to no fewer than thirty-three. This great increase was influenced in a considerable degree by the popularity of the hard china manufactured from the *kaolin* discovered at St. Yrier, in the department of the Haut-Vienne and Limoges. Around St. Yrier, as may readily be supposed, many small manufacturers established themselves at an early period; and among them may be noticed, as the most important, the MM. Alluand, whose successors have increased their transactions to so great an extent, that in the year 1844 they gave employment to 400 workmen.

In the Catalogue of the first Exhibition of the products of French Industry, which took place in the year VI. of the Republic (1798), we find, in addition to the objects contributed by the royal establishment at Sèvres, many works of very great beauty by Dihl and Guerhard,—who, in conjunction with the MM. Nast, may be looked upon as the earliest independent representatives of the higher departments of their art. The latter enterprising manufacturers have devoted themselves especially to the production of fine china; and, taking advantage of the scientific investigations so liberally communicated from time to time to those interested in the subject, and at length given to the public by M. Brongniart, they have contrived to keep pace with, and even to rival, the beautiful productions of Sèvres. In the first French Exhibition we certainly find the names of two manufacturers of common earthenware; but their goods would appear to have been rather of the nature of pipeclay, and common porous wares, than even what is properly understood as earthenware.

In the second Exposition—that of the year IX. of the Republic (1801)—the names of Messrs. Utzschneider and Co., of Sarreguemines, first appear,—although at that period their productions were little more than what is generally described as *faïence*, or stoneware. In the following year, on the occasion of the tenth Exposition, a great display took place, to which the provinces largely contributed. The ordinary *faïence*, which we find was then extensively manufactured in France, consisted of a common clay body with a metallic glaze, rendered opaque by tin,—the same, in fact, which was employed in England prior to the great improvements introduced by Wedgwood. It is scarcely necessary to observe, that we are indebted to that great man for the improvements which converted this clumsy and fragile material into the compact earthenware and

* "Notices sur les Objets envoyés à l'Exposition de l'Industrie Française, 1806."

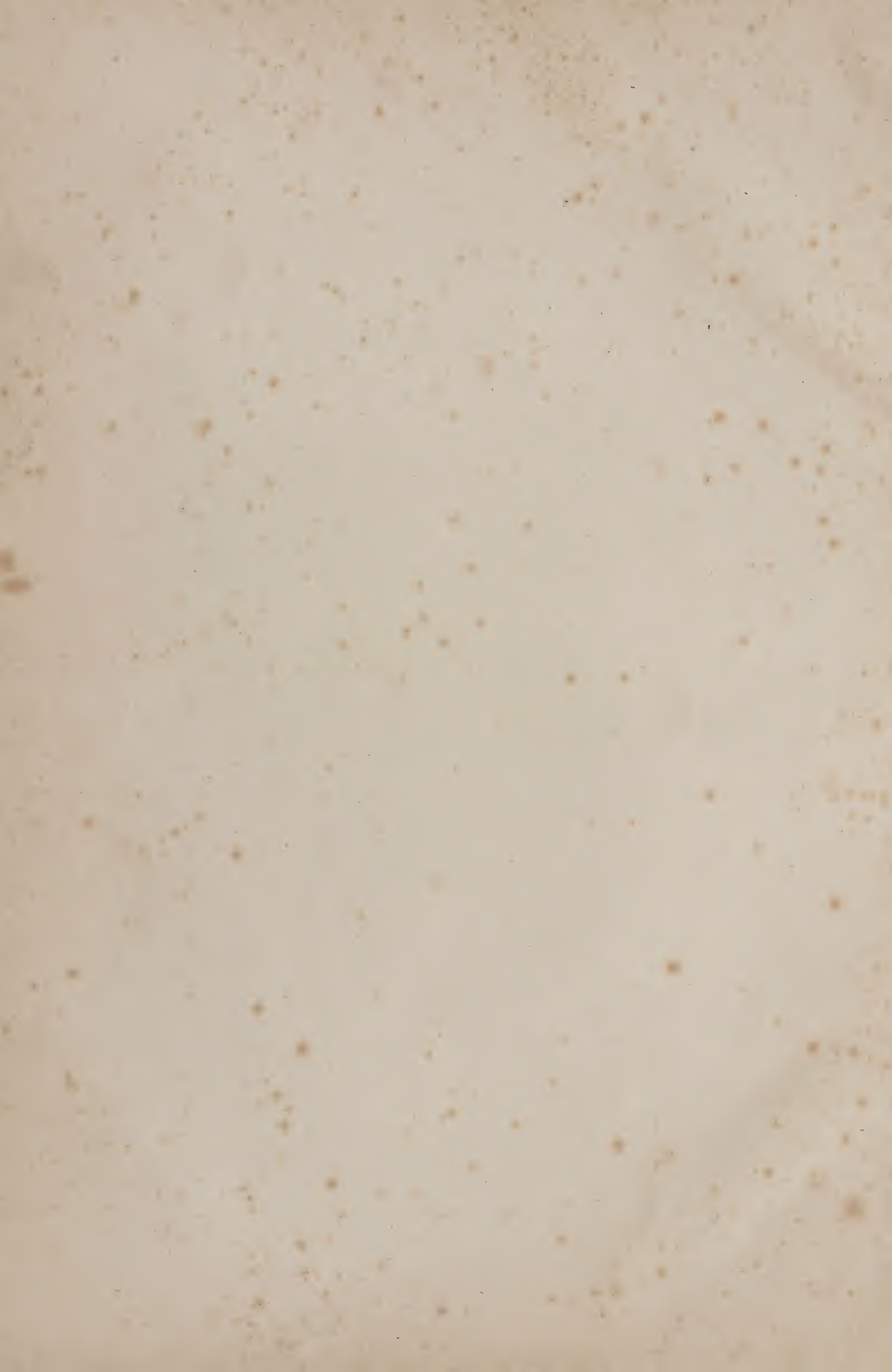
VASE IN WHITE CHINA.

ironstone so largely used in the present day; and it is gratifying to find the services which he so rendered to industry fully appreciated by the French *savans*. In the records of the Exposition of 1834 we find the following observations by M. Brongniart on the state of the manufacture in France at that period:—"In the present exhibition we meet with a kind of pottery new in this country, although it has long existed in England, where it has appeared under the name of ironstone-china. Under the somewhat ambitious designations of *porcelaine opaque* and *porcelaine dure*, our manufacturers are now commencing its introduction into France."

Although this variety of pottery is compounded of the same materials as china, but in different proportions, it differs essentially from that material in one respect; for whilst the latter is more or less transparent, this is opaque. It must be obvious that the quality of transparency implies an absolute fusion of the particles composing the material; while an opaque material, of a more or less sandy or earthy fracture, must necessarily consist of particles held together only by some cementing ingredient, instead of a perfectly homogeneous substance. The discovery of this variety of porcelain was justly regarded in France as a new starting-point; and that country is indebted to the exertions of one of its most distinguished chemists and *savans*, M. de St. Amand, for a knowledge of the processes in use in England. That gentleman visited many establishments in this country, and has recorded the results of his examinations in the Transactions of the "Société d'Encouragement" for the year 1824. On his return to Paris he proceeded to Sèvres, to put in practice, under the auspices of M. Brongniart, at that time director of the royal manufactory, the experience he had gained during his visit to England. M. de St. Amand also conducted experiments at Creil and at Montereau, and specimens of the results of his labours may still be seen in the ceramic collection of the royal establishment. Through his exertions manufactories were successfully founded at the two last-named places, as well as at Choisy de Valentine, near Toulouse.

Thus, while we may fairly give to France credit for having preceded this country in carrying to perfection, and, indeed, introducing to general use, elaborately-decorated objects in the finest china, we may justly lay claim to the merit of having elevated the more ordinary and popular processes of manufacture to such a degree of excellence as to supply to all classes of the community an approximation to the beauty and luxury of the more costly manufacture. Taking advantage of these processes, Messrs. Utzschneider and Co. have not only improved the character of production in France, but have also succeeded in reducing the price to the lowest possible amount. The same remarks will equally apply to Messrs. Le Bœuf and Milliet, of Montereau-faut-Yonne and Creil, in the department of the Oise.

As we contemplate engraving in a future number a richly-decorated example of French porcelain, we shall defer for the present any remarks on the ordinary processes of decoration; and shall content ourselves with calling the attention of the reader to the elegant form of the vase, which has been so skilfully executed by Messrs. Jouhanneaud and Dubois, of the general taste of whose productions it may be regarded as a happy specimen.



9 1/2

